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THE DEVELOPMENT OF AN INSTRUMENT TO MEASURE  
THE THEORETICAL PARAMETERS OF CHARISMA  
WITHIN ORGANIZATIONS

THESIS

Daniel K. Hicks, Captain, USAF

AFIT/GLM/LSR/91S-30

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THE DEVELOPMENT OF AN INSTRUMENT TO MEASURE  
THE THEORETICAL PARAMETERS OF CHARISMA  
WITHIN ORGANIZATIONS

THESIS

Presented to the Faculty of the  
School of Systems and Logistics  
of the Air Force Institute of Technology  
Air University

In Partial Fulfillment of the  
Requirements for the Degree of  
Master of Science in Logistics

Daniel K. Hicks, B.A.

Captain, USAF

September 1991

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## *Preface*

The purpose of this study was to identify the many parameters in charismatic leadership theory and to develop and validate an instrument capable of testing the theorized behaviors and qualities of leaders within organizations that lead to the attribution of charisma.

An initial instrument was constructed, incorporating a critical incident and semantic differentials. The results of a pilot study directed refinement of the instrument. Analysis of the data was performed using Cronbach's coefficient of reliability ( $\alpha$ ), the rotated principal factors method of factor analysis, and the Pearson product moment coefficient of correlation. The instruments developed here show promise for testing the existing theories of charismatic leadership. Further testing and application of the instruments, in academic and operational settings are warranted.

While only my name appears on this thesis, many others provided invaluable help. I owe a great debt to my thesis advisor, Major W. G. Stone, for continually raising my sights to the possible. Then, several people made the possible a reality. I need to thank my father, Loy A. Hicks, my parents-in-law, D. Leon and Emily L. Pippin, my brother-in-law, Brett A. Pippin, and my friend, Roscoe Smith, all for acting on my behalf in distributing and collecting the initial instruments. And thanks to the many volunteers who filled them out. Finally, my wife, Jeanne, and children, Daniel, Benjamin, Michelle, and BethEmily were patient, supportive, and understanding beyond measure.

Daniel K. Hicks

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*Abstract*

This study set out to identify the parameters in the existing leadership theories that lead to the attribution of charisma in organizational leaders. Once these parameters were identified, the goal was to develop and validate the means to measure the parameters.

Organizational scientists began to wrestle with the operation of charismatic authority within organizations in 1961. A review of the literature uncovered eight theories that describe the operation of charisma with organizations. From these eight theories, 37 distinct behaviors or qualities were extracted. Each of these was theorized to lead to the attribution of charisma either singly or in combination with other parameters.

The 37 parameters were operationally defined through the use of semantic differentials. The scales built were the bulk of an instrument which also included a critical incident. Through analysis of the data from a pilot study, appropriate groups of pairs were found to test each of the 37 parameters. The rigor of the semantic differential is well-documented and the reliabilities achieved (as measured by Cronbach's alpha) were acceptable in all cases.

The scales for measuring the 37 parameters and 2 anchoring scales became the input for factor analysis using the rotated principal factors method and Pearson product moment coefficient of correlation. The results of this analysis showed that the 37 original parameters collapse into 11 factors. Further use of Cronbach's alpha

showed that these factors can be tested with high reliability just as the 37 original ones can be. The scales were placed into instruments to aid future studies.

Four instruments are now available for use in future research and in training or consultation work. One tests the 37 original parameters and three different-sized versions test the 11 factors found in this study.

# THE DEVELOPMENT OF AN INSTRUMENT TO MEASURE THE THEORETICAL PARAMETERS OF CHARISMA WITHIN ORGANIZATIONS

## *I. Introduction*

This chapter provides the foundation for the thesis. The reader will find the general issue first discussed and then narrowed from a basic leadership theory coverage to the area of interest: charismatic leadership in an organizational setting. The reader will find the problem statement in this chapter as well as the research objectives laid out to solve the problem. Definitions pertinent to the entire thesis follow the research objectives. This chapter will conclude with a look at the thesis outline.

### *General Issue*

A recurring theme in the professional development of those vested with authority and responsibility is the essential nature of leadership. Business executives, military officers (both commissioned and non-commissioned), and politicians all attend leadership seminars and receive ratings of their leadership abilities. Additionally, it is expected that they read the literature of leadership.

This literature runs the gamut from the Great Man theory, to the trait, behavior, and contingency (or situational) theories. This exposure to the subject of leadership afforded potential leaders is based on the premise that somehow the process of learning influences the essence of being. And, as the thinking goes, in being capable leaders these men and women will achieve great things.

The organizational sciences use this same utilitarian, pragmatic approach. Efforts have focused on identifying and quantifying the predicting variables, or parameters, of leadership. The expected result of this process has been the ability to predict organizational performance using the presence or absence of the known leadership parameters in the organization's leaders. Each of the organizational leadership theories to date has, to a greater or lesser degree, been unsuccessful in predicting performance.

There are those (notably Mintzberg (1973, 1982) and Zaleznik (1977)) who feel this downfall is systemic (Conger & Kanungo, 1988b:6). According to these writers it is not leadership being considered at all. The scientists have been studying and quantifying managership and calling it leadership. Berlew (1974) makes this distinction, too. Managerial skills "deal with relationships between man and his work, and between men and other men" (Berlew, 1974:22). True leadership skills go on to excite and lift the aspirations and vision of organization members (Berlew, 1974:22). But since the measurement of these "profound leadership styles" (Conger & Kanungo, 1988b:6) is difficult and tenuous at best, researchers have ignored these styles. Instead, organizational scientists theorize, research, report, and teach as leadership, the effects of nuts-and-bolts, day-to-day supervisory skills and methods.

In an attempt to fill this void, organizational theorists have put pen to paper with commendable vigor. To better understand the power of "true and visionary leadership" (Conger & Kanungo, 1988b:6), the organizational scientists have begun to address more complex

leadership issues, such as charismatic leadership. For this to take place, the charismatic theorists made a shift in emphasis. Organization performance was no longer the major indicator that leadership was present and at work in the organization. Concepts focusing on the followers and their intensely personal reactions to the presence and operation of organizational leadership replaced organization performance. Charismatic theorists also left behind the task- or relationship-oriented dichotomy established by the studies done at The Ohio State University (or the similar, initiating structure / consideration dichotomy, if the reader prefers) (Yukl, 1989b:258) previously used to describe leadership behavior (Conger, 1988:24). Again, the charismatic approach concerned itself with the impact of the leader's behaviors on the followers. Behaviors of interest became "articulating a vision and a mission, empowering followers, setting challenging expectations for followers, and creating positive and inspirational images in the minds of followers" (Conger, 1988:24). Several theories are now available that enumerate or at least suggest the parameters of charismatic leadership and its effects within organizations.

Some have criticized these theories as wholly unprovable, academic recitations that cannot be quantified (Cribbin, 1981:10). The organizational scientists, however, have been aware of the severe shortage of empirical support for the theories since early on (House, 1977:190). Academic awareness, however has not been sufficiently motivating to produce a remedy for the problem. From House (1977) early recognition of the need for empirical testing through the late

1980s little progress was made toward filling the void (Yukl, 19-89b:270). The lack of evidence continues to the present (Stone:12).

Although the term *charisma* occurs frequently in social conversation, and increasingly in journalistic accounts of business and other organizations, the organizational literature offers little concrete knowledge or even discussion of this phenomenon. Empirical studies of *charisma* are sparse, and there is little agreement among them on conceptual and operational definitions. (Trice & Beyer, 1986:114)

Even where scientists conducted empirical studies, the evidence has not been sufficiently conclusive or extensive to unite "theorists, researchers, and practitioners" (Gibson, Ivancevich, & Donnelly, 19-91:417). It is this very issue that provides the impetus for this thesis.

It is this writer's contention that without an effective measurement instrument, the theorized behaviors and attributes of charismatic leaders within organizations will, of necessity, remain untested. This lack of testing will perpetuate the lack of empirical evidence and consequently, scientists may never know the true parameters of charismatic leadership. Organizational scientists must begin to operationalize the concept. Unless the means are developed to test the hypothesized parameters of charismatic leadership,

...the study of *charisma* will remain a largely theoretical field. Without hard data to validate the many propositions offered by theorists, attempts to understand *charisma* will be mainly centered on offsetting one theory against another. This could result in the field of charismatic leadership being viewed as an area of academic rumination without practical applicability. (Stone:12)

#### *Problem Statement*

The purpose of this study is to identify the many parameters in charismatic leadership theory and to develop and validate an instru-



ment capable of testing the theorized behaviors and qualities of leaders within organizations that lead to the attribution of charisma.

### *Research Objectives*

This thesis effort must accomplish five objectives to solve the stated research problem. The reader will find these objectives stated below.

The first objective is to uncover all the theoretical writings that describe the operation of charisma within organizations. Chapter II, Literature Review covers each of these theories in detail.

The second objective is to extract all of the theoretical parameters concerning the behaviors and qualities of the leader that lead to the attribution of charisma. The reader will find a detailed discussion of each of the parameters in Chapter II, Literature Review.

The third objective is to develop operational definitions for the theorized parameters. This will be done by finding several word or phrase pairs that accurately portray the meaning intended by the theorist(s) who identified the parameter.

The fourth objective is to conduct and analyze the results of a pilot study that will test the adequacy of the word and phrase pairs in capturing the identified (and perhaps some unidentified) parameters of charisma.

The fifth objective is to incorporate the pairs, found in steps three and four, into an instrument capable of measuring the contribution of leadership behaviors and characteristics to the attribution of charisma.

## *Definitions*

*Charisma.* A personal characteristic of extraordinary power or charm attributed to the possessor by another based on the relationship between the two persons.

*Charismatic Leader.* A leader who exhibits the behaviors and characteristics that cause others to attribute to him or her charisma.

*Charismatic Parameter.* A behavior or trait theorized to or that does in fact cause a person to be labelled charismatic, either by itself or by interaction with other parameters.

*Attribution.* The process of ascribing a quality or characteristic to a person because of some behavior or trait.

## *Thesis Outline*

The remainder of this thesis will flow as follows. Chapter II, Literature Review, will present the development of charismatic leadership theory, beginning with the introduction of charisma into the secular, rather than sacred, world. Included is a detailed look at each organizational science theory. Finally, Chapter II addresses each parameter identified in the extant theories.

Chapter III, Methodology, will discuss the justification for selecting the instrument type found in Appendix A. Also, this chapter will describe the accepted construction method for the chosen instrument type. Chapter III also contains the actual construction plan for the instrument. After the description of the instrument-building process comes the plan for administering the instrument in a pilot study. Finally, Chapter III describes the methods used to analyze the data gathered in the pilot study.

Chapter IV will contain the findings of the pre-test of the initial instrument. The statistical analysis of the pre-test will demonstrate the rationale for the final design and contents of the instrument developed in this thesis project.

Chapter V will contain recommendations for future work on the subject of charismatic leadership. The recommendations will come directly from the lessons learned in this research effort.

### *Summary*

This chapter has introduced the general issue of charismatic leadership in an organization context and presented the problem statement that directs this study. This chapter outlined the five research objectives that will enable me to develop and validate an instrument to test the theoretical parameters that describe charismatic leadership within organizations. Finally, this chapter provided definitions of commonly occurring terms and an outline of the remainder of this thesis.

## *II. Literature Review*

This chapter will review the development of charismatic leadership theory. The reader will first discover the transition of charisma from the ecclesiastical realm to the secular. The chapter then traces Max Weber's view (1961) of a leadership authority based on charisma from its roots in the discipline of sociology through the political and social sciences. The next section of this chapter introduces the reader to the eight theories of charismatic leadership within an organizational setting. Thirty-seven separate, theorized parameters are extracted from the theories and presented in the final section.

### *Early Charismatic Theory Development*

The English word, charisma, is a transliteration of the Greek, *Χαρίσματα* (*karismata*) (Marshall, 1976:689) meaning, gifts (Conger & Kanungo, 1987:637; Gibson, et al.:416). In their historical context, the "karismata" were a set of gifts "bestowed on the apostles and early Christians" (Nave, 1974:157). The Christian New Testament provides a description of the nature and scope of this set of divine gifts. The two passages that provide the greatest elucidation on the subject of the "karismata" are in Paul's epistle to the Romans, Chapter 12, and in his first epistle to the Corinthians, Chapter 12. The "karismata" were accepted as "gifts from God...to be used for Him" (Henry, 1961:1818). These "divinely inspired gift[s]" (Yukl, 1989a:204) of supernatural power became the basis for institutionalizing

the ecclesiastical structure of and roles in the Christian church (Conger & Kanungo, 1987:638).

It is almost universally accepted that Weber brought the theory of charismatic leadership into the 20th century (Stone:43-47). Weber (1961) recognized that the charismatic gifts of the church granted organizational power to those who possessed them. Weber credits Sohm for first recognizing the nature of charismatic leadership in a religious setting (1961:11). This transition meant that the divine would have to be removed as the basis for charismatic power. Through Weber (1961), the term, charismatic, came to mean any exceptional "powers that could not be clearly explained by logical means" (Gibson, et al.:416). It was Weber who brought the ecclesiastical concept of charisma out of the church and into secular organizations (Conger & Kanungo, 1987:638).

The emphasis of Weber's work (1961) was in his concept of authority. "Authority means the probability that a specific command will be obeyed" (Weber, 1961:4). "Max Weber...outlined the types of authority existing in organizations. He discusses three types: traditional, legal, and charismatic" (Zaleznik and Kets De Vries, 1975:13). Each of these authority types establishes the foundation on which obedience rests. One can distinguish charismatic authority from traditional and rational-legal in that, "obedience is given exclusively to the leader as a person, for the sake of his non-routine qualities, not because of enacted position or traditional dignity" (Weber, 1961:10). It was certainly Weber's work that set charismatic

leadership in the realm of legitimate sources of authority with traditional and rational-legal authority (Shils, 1965:199).

Weber (1961) presented his theories in very general terms, and while they were of value and interest to social and political scientists (Tucker, 1968:731), they were not of sufficient operational exactitude or specificity to allow organization scientists to design empirical tests of their validity (Conger & Kanungo, 1987:638; Shils, 1965:47; Tucker, 1968:733-734).

Talcott Parsons (1968) challenged the specter-like quality of charisma as set forth by Weber (1961). Parsons, in the 1930's, gave "one of the first calls for empirical research to support the conceptualization of charisma" (Stone:48) presented by Weber (1961). A Weberian theme that occurs frequently through the next phase of the development of charismatic theory is that of a contextual crisis (Conger & Kanungo, 1988a:329). Tucker (1968) echoed the crisis theme and explains that it is simply logical that a charismatic should appear in times of turmoil and unrest. In this context, by the force of his personality and vision, he embodies hope for the hopeless and rest for the weary (Tucker, 1968:742-743). Bass (1990:31), along with several other authors (Stone:49) share the feeling that situations characterized by uncertainty and change facilitate the emergence of a charismatic leader.

A second Weberian theme addresses the leader-follower relationship. "Weber stresses the response of the followers as the crucial test of charisma" (Tucker, 1968:737). "The test of a leader lies in the reaction and response of his followers" (Bradley, 1981:3). This

response is the beginning of the process by which a follower attributes to his leader charisma. "Attaining charisma *in the eyes of one's employees* [emphasis added] is central to succeeding as a transformational leader" (Bass, 1990:21). In the article quoted, Bass (1990) established transformational leadership as an entity containing charisma as one aspect. However, since displaying charisma is admittedly vital to a transformational leader (echoing Bass' quote above), it is reasonable to conclude that without being charismatic in the followers' eyes, a leader cannot be transformational. This statement is supported by both Yukl (1989a) and Bass himself: "Charisma is a necessary ingredient of transformational leadership" (1985:31). (Admittedly, an organizational leader may be charismatic without being transformational (Gibson, et al.:423), but this aspect of Bass' findings is not germane in this context). Others, among them Dow (1969) and Willner (1984), agree that the peculiar relationship in which charismatic attribution occurs is essential (Conger & Kanungo, 1987:638). In fact, Willner went so far as to say, "It is not what the leader is but what people see the leader as that counts in generating the charismatic relationship" (1984:14).

This is an appropriate point to introduce attribution theory, an underlying foundation for this thesis. According to Heider, attribution is "the linking of an event with its underlying conditions" (1958:89). Highly simplified, attribution theory purports that man has an intrinsic need to order his environment and experience. According to Heider, people observe an event and then, often in a logical, analytical way, attempt to disentangle and rearrange connec-

tions between the various effects and possible causes" (Harvey & Smith, 1977:37). This provides each person with an adaptive reality based on making sense of past experience. According to the theory, a person confronted with a charismatic leader will attempt to sift through his many perceptions of that person to determine what makes that leader charismatic.

Here is an example from Heider (1958).

If we know that only one person succeeded or only one person failed out of a large number in a certain endeavor, then we shall ascribe success or failure to this person - to his great ability or to his lack of ability. On the other hand, if we know that practically everyone who tries succeeds, we shall attribute the success to the task. The task is then described as being easy. If hardly anyone succeeds it is felt to be difficult. (Heider, 1958:89)

There is no expectation that the process of attribution is highly scientific. Often attribution is made with limited input. This does not negate the reality of the attribution for the perceiver. Each experience, and subsequent explanation, simply builds on previous understanding (Heider, 1958:155).

Returning to the development of charismatic theory, Parson's call for empirical evidence of charisma's nature led political scientists and sociologists into two different paths (Conger & Kanungo, 1987:638). Perhaps a better comparison is that the two schools of thought were travelling in the same direction in the same stream, but each was closer to an opposite bank. While each school emphasized its own preference (a contextual crisis or a relationship of attribution), both recognized the importance of the other as a modifier variable (Stone:49-50).



### *The Historical Rise of Organizational Science Theories of Charismatic Leadership*

It was not until 1961 that organizational scientists joined the quest for the understanding of charisma. According to Conger and Kanungo, Etzioni (1961) made the earliest attempt to develop an organizational setting for the operation of charismatic leadership (1987:637). Weber's focus (1961) was on the nature of authority in society. He felt that each of the three types of authority he outlined would have its own "fundamentally different sociological structure of executive staff and means of administration" (Weber, 1961:4). Etzioni (1961) took an approach more directly related to the organization sciences. He extracted and then projected the structural aspect of Weber's sociological theory (1961) into organizations (Etzioni, 1961:1). This emphasis, the impact of authority-type on the structure of an organization, marked the inception of organizational science's consideration of charisma's effect on organizations. Since that time, there have been eight theories reported in the literature. The following paragraphs provide a very brief description of each of these theories. Later, each theory is covered in depth.

In 1974, Berlew presented his theory of charisma's role in the organization. His focus was twofold. He first outlined the importance of charismatic leadership in situations of turmoil and change. Then he presented a summary of the leadership behaviors he viewed as charismatic.

1975 brought Zaleznik and Kets de Vries' book, *Power and the Corporate Mind*, primarily a work in organizational psychology. In their book, Zaleznik and Kets de Vries (1975) devote a chapter to the

psychological development of two types of leaders, the charismatic leader and his opposite, the consensus leader. The emphasis is on the inner workings of the leader's mind. However, Zaleznik and Kets de Vries (1975) believe several traits and behaviors will be clearly manifest as a result of the leader's personality.

House (1977) developed "A 1976 Theory of Charismatic Leadership." He based his theory on a review of the sociological, political science, and social psychological literature on charisma. Like Zaleznik and Kets De Vries (1975), House (1977) provided a perspective of the organizational psychology of charismatic leadership. His emphasis was on the effects charisma has on organizations and organization members. Of necessity then, House (1977) outlined the characteristics and behaviors of charismatic leaders that produce the reported effects.

Shortly afterward, Katz and Kahn (1978) wrote a book that briefly addressed the nature of charisma when employed by organizational leaders. Charisma was seen as a product of a leader's behaviors, the followers' emotional response, and the contextual events in which they take place. Trust supplants reason when charisma is at work in the organization. The leader behaves in a way that makes this trust pervasive and powerful.

The political scientist, James MacGregor Burns (1978), was responsible for introducing the concept of transformational leadership in 1978 (Conger, 1988:25). In Burns' view, transformational leadership is one of two possible leadership types, the other being transactional (1978:19). Transformational leadership was operationalized for

organizational contexts by Bass and Avolio in 1985 (Conger, 1988:26). As noted before, charisma is an important ingredient in the making of a transformational leader. Because of its importance, Bass (1985) provided a set of behaviors and qualities that promote the attribution of charisma.

Trice and Beyer broke new ground in 1986. Their article, "Charisma and its Routinization in Two Social Movement Organizations," focused on the mechanisms that perpetuated the charismatic leader's vision and programs as part of the organizational culture. This aspect had not been addressed before in any significant numbers or at any length (Trice & Beyer, 1986:114). To lay the foundation for their work, Trice and Beyer (1986) performed a comparatively exhaustive review of both the theoretical and empirical literature extant to date.

In 1987, Conger and Kanungo published their "...Behavioral Theory of Charismatic Leadership in Organizational Settings." As the title indicates, the theoretical basis is behavioral. Conger and Kanungo (1987) theorized that the interaction of several behaviors lead to the attribution of charisma. The attribution process has a relational foundation. That is, the leader and followers exist in a relationship that facilitates the attribution of charisma to the leader by the followers based on the actions of the leader (Yukl, 1989a:205).

Boal and Bryson proposed a model for charismatic leadership in 1988. The model incorporates the followers' reality (a phenomenological approach) and the various components of the environment-

organization-leader-follower interactions (a structural approach) (Boal & Bryson, 1988:18). Into the model, the theorists introduced two types of charismatic leaders. The visionary charismatic leader was seen as substantively different from the crisis-produced charismatic leader. Only "the first [of six model] component[s] consists of leader characteristics and behaviors..." (Boal & Bryson, 1988:18).

### *The Theories in Detail*

This section covers in detail each of the theories mentioned above. A somewhat arbitrary organization of reverse chronological order has been chosen. Following each theory, I have placed a list of the parameters that deal with the behaviors, traits, qualities, and visible characteristics of a charismatic leader as outlined in the particular writing under discussion.

It needs to be said that some of the theories discussed below are more broad than the boundaries established by a theory of attribution. The additional components these theories consider include the personality of the followers, or the nature of the situation in which a charismatic leader may rise to power, or the effects on the organization's culture or structure. I made a conscious choice to confine this discussion to a description of the leader as seen through the eyes of the follower. This attributional, relational emphasis is in keeping with the mainstream of the charismatic leadership writings. "Charisma is believed to result from follower perceptions of leader qualities and behaviors" (Yukl, 1989a:205).

This is not meant to ignore the importance of the additional perspectives mentioned above. There is a place for considering the

characteristics of the follower and the situation in understanding the outworking of charisma in organizations. In fact, there is still a debate over the source of charisma raging today (Yukl, 1989a:205).

There is some validity in the words of Katz and Kahn: "Charisma derives from people's emotional needs and from the dramatic events associated with the exercise of leadership" (1978:545). But the heart of the matter is that it is the leader (not the "people's emotional needs" or "the dramatic events") who is labelled charismatic.

So, this research work presupposes (like Willner (1984), Conger and Kanungo (1987), Bass (1985), and others do) that charisma is attributed to a leader by those around him. No situation will call a leader charismatic. No leader can say of himself with certainty at any point in time, "I am charismatic." Rather, "as an attribution, charisma is in the eye of the beholder. Therefore, it is relative to the beholder" (Bass, 1985:40).

With this presupposition, the subjects of interest are the beholders, the followers, the organization members. This research effort assumes any person who has labelled a leader as charismatic had a "follower-personality" sufficiently suited to the given situation, and as a result that follower recognized charisma at work.

And so, I sought in the theories reviewed below visible, noticeable leadership behaviors and qualities that may cause attribution of charisma to occur. To some degree, all the organization science theorists have hypothesized how followers perceive a charismatic leader. After extracting the theorized parameters, I sought to construct an instrument that would operationalize them, allowing researchers to

determine if followers indeed perceive their charismatic leader as it is theorized they do.

The subsections that follow describe each of the theories. After each theory, the parameters taken from it, that fit into an attribution theory framework, are listed. Quotes, summaries, and references provide justification for each extracted parameter. Since the goal is to make each parameter operational, the parameter is phrased in a way that it answers a question. This question could be posed to organization members, "How did the charismatic one appear to you?" Each of the parameters provides an answer to that question. I sought to make the parameter as succinct as possible while retaining the theorists' intent.

*Boal and Bryson (1988)*. This theory is the first that refuses to be drawn into choosing between a relationship basis or a crisis basis for the emergence of a charismatic leader. Boal and Bryson (1988) make it clear that they believe there are two distinct types of charismatic leaders. The first type, a visionary charismatic, is an extraordinary individual. The second, a crisis-produced charismatic, is the product of extraordinary events (Boal & Bryson, 1988:11).

Different though the two may be, they share a common *raison d'être*: charismatic leaders "help create a new or different world that is phenomenologically valid - that is, 'real' - to the followers" (Boal & Bryson, 1988:14). Phenomenological validity is established when a person's feelings and beliefs are consistent with their actions and when the person's behaviors elicit consistent consequences (Boal & Bryson, 1988:13). The charismatic's ability to establish a "real"

world brings "order, meaning, purpose, and consequence to [events for his followers]" (Boal & Bryson, 1988:13). The authors assert the effects of this charismatic touch are identical to those outlined in House (1977) (Boal & Bryson, 1988:12).

Phenomenological validity is the foundation for the Boal and Bryson (1988) model. But, the charismatic leader (visionary or crisis-produced) is only a part of the picture. The visionary charismatic leader enters when the organization members are not experiencing intrinsic validity. That is, the members are not finding a strong connection between their actions and their values, beliefs, and feelings. The crisis-produced charismatic leader emerges when organization members feel no extrinsic validity. That is, they find that their actions even if adequately tied to their value system do not effect appropriate changes or consequences (Boal & Bryson, 1988:13). The theory produces two charismatic behaviors that lead to the development of a more "real" world for the leader's followers.

1. The visionary charismatic leader has the ability to tie the followers' actions and roles in the organization to their own values, beliefs, and feelings (Boal & Bryson, 1988:16). The parameter drawn from this is provides relevance and meaning.

2. The crisis-produced charismatic leader is able to show his followers which actions will end the dysfunctional environment and produce the desired results (Boal & Bryson, 1988:16). The parameters drawn from this are effective and successful.

*Conger and Kanungo (1987).* Conger and Kanungo believe that charisma must be "strip[ped of] the aura of mysticism" (1987:639) that

surrounds it before empirical studies can take place. Their contribution toward that end was to outline an attributional theory of the behaviors found in charismatic leaders. The governing assumption of this theory is that followers measure each of a leader's behaviors and, as a result of some behaviors, attribute charisma to their leader. Conger and Kanungo cited the work of Willner (1984) as support for the concept of attribution in the context of charismatic leadership (1987:638).

It is important to keep in mind that Conger and Kanungo (1987) did not simply provide a laundry list of things charismatic leaders do. Rather, they provided a "constellation" (Conger & Kanungo, 1987:640) of behaviors that map the conduct of such leaders. As with stellar constellations, each of the components finds its relevance and significance in its relationships with the other members of the group.

The behaviors are not assumed to be present in every charismatic leader to the same extent, and the relative importance of each aspect of behavior for attribution of charisma depends to some extent on the leadership situation. (Yukl, 1989a:208)

"It is assumed that these components are interrelated and that they differ in presence and intensity among charismatic leaders" (Conger & Kanungo, 1987:640).

Immediately following is a summary list, with abbreviated descriptions where these can be of benefit, of the parametric behaviors Conger and Kanungo (1987) theorized can cause charismatic attribution. A similar list is available in the Conger and Kanungo article (1987) on page 641.



1. The charismatic leader holds a view of the future that is widely different from the status quo yet one that is acceptable to his followers (Conger & Kanungo, 1987:640,642). The parameter drawn from this is visionary.

2. The charismatic leader is a credible communicator of the vision. Charisma is attributed to a leader "when he/she succeeds in changing his/her followers' attitudes to accept the advocated vision" (Conger & Kanungo, 1987:640). The parameter drawn from this is persuasive.

3. The charismatic leader's trustworthiness is unique. Because of their unusual devotion to the ideals held in common by the leader and followers, charismatic leaders "are prepared to take high personal risks or incur high personal costs..., [thereby demonstrating they are] worthy of complete trust" (Conger & Kanungo, 1987:642). The parameters drawn from this are highly devoted, willing to risk self, and exceptionally trustworthy.

4. Charismatic leaders demonstrate a high degree of technical proficiency in their sphere of operations (Conger & Kanungo, 1987:642). The parameter drawn from this is technically proficient.

5. Innovative strategies, unique plans, selfless behavior, and unprecedented risk-taking cause the charismatic leader to be seen as unconventional or counternormative (Conger & Kanungo, 1987:642-643). The parameter drawn from this is unconventional.

6. The charismatic leader is able to communicate or articulate her grasp of the current situation, convincing others her view is valid. This includes an accurate assessment of available

resources and limiting constraints (Conger & Kanungo, 1987:643). The parameter, persuasive, is mentioned above. The new parameter drawn from this is perceptive.

7. The charismatic leader is also able to convince his followers of his willingness and desire to lead. This is done through "assertive behavior and expression of self-confidence, expertise, unconventionality, and concern for followers' needs" (Conger & Kanungo, 1987:644). Note that "expertise" and "unconventionality" are covered above by the parameters technically proficient and unconventional. Thus, the new parameters drawn from this are assertive, self-confident, and concerned for others.

8. Charismatic leaders "act as agents bringing about radical changes. The attribution is made simply on the basis of actions taken to bring about change or reform" (Conger & Kanungo, 1987:644). The parameter drawn from this is catalyst of change.

9. Organizational dysfunction or a crisis can facilitate the attribution of charisma to a leader. In these contexts, a charismatic leader is one who can still demonstrate a clear sense of direction and control (Conger & Kanungo, 1987:645). The parameter drawn from this is unaffected by crises.

*Trice and Beyer (1986).* As the title of the article by Trice and Beyer indicates, the authors sought to discover "the processes by which the social changes introduced by the charismatic leader are institutionalized and projected into the future" (1986:114). Defining or describing the nature of charisma was a necessary predecessor to meet this goal. The literature review on charisma began with a

lengthy look at Weber's concepts of authority. From Weber's writings the authors extracted five components of charisma. These components are

(1) an "extraordinarily gifted" person [quote from Weber used and cited by Trice and Beyer]..., (2) a social crisis or situation of desperation, (3) a set of ideas providing a radical solution to the crisis, (4) a set of followers who are attracted to the exceptional person and come to believe that he or she is directly linked to transcendent powers, (5) the validation of that person's extraordinary gifts and transcendence by repeated successes. (Trice & Beyer, 1986:118-119)

Like Conger and Kanungo (1987), Trice and Beyer (1986) contend that these components are intertwined. No single component is sufficient to facilitate the rise of charisma by itself. Nor is it necessary "that all of the components...be present to a high degree" (Trice & Beyer, 1986:132). Going beyond Conger and Kanungo (1987), Trice and Beyer argue that the complete absence of one component would preclude the presence and effect of charisma (1986:132).

Trice and Beyer (1986) took as their first task the characterization of the "extraordinarily gifted" person. As is consistent with the body of literature, the authors maintained that certain behaviors and traits commend the leader to the followers and, as a result, the leader is identified as charismatic. As Trice and Beyer (1986) presented this initial discussion solely to lay a foundation (recall the aim is to address the routinization of charisma), they deferred to past works for the catalog of traits and behaviors. They relied heavily on the 1977 work by House. In fact, Trice and Beyer concluded that, among the composite body of literature, House (1977) has most successfully captured Weber's notion of charisma (1986:132).

Since the theory by House (1977) receives its own lengthy discussion below, I will not present Trice and Beyer's restatement here.

Of the remaining four components, only the third and fifth apply in this context. The second, which concerns the situation, and the fourth, which concerns the followers will not be discussed because of the attributional focus of this thesis. This researcher accepts that if the followers have, of their own admission, attributed charisma to a leader, the circumstances and the psychological make-up of the followers were both suitable for the attribution to take place.

The third component described the unusual perspective used by a charismatic leader. His radical approach to the crisis provides a fresh set of goals for the organization pertinent to the dilemma and innovative programs to achieve the goals (Trice & Beyer, 1986:133). In the fifth component, Trice and Beyer (1986) establish the importance of continuing success. The reader should be reminded of Boal and Bryson (1988) as covered above.

Presented below are the parameters found in the third and fifth components of Trice and Beyer's (1986) five-part model of charisma. Recall that the first component is essentially a restatement of House (1977) and is covered later.

1. The charismatic leader has an atypical sense of mission consisting of "radical and novel visions and prescriptions" (Trice & Beyer, 1986:133) for solving the organizational crisis. The parameters drawn from this are visionary and unconventional.

2. Ongoing success is necessary for the attribution of charisma to a leader. "Charismatics apparently understand very well

the pivotal role of success in maintaining their authority, for they go to unusual lengths to claim and redefine success" (Trice & Beyer, 1986:132). The parameters drawn from this are successful and image conscious.

*Burns (1978)/Bass (1985).* The basis of leadership is an interactive relationship between two or more persons. This association is goal-oriented and is influenced by "different levels of motivations and of power potential" (Burns, 1978:19) brought into the relationship by each of the players. There are only two basic forms of the alliance, according to Burns (1978). Transactional leadership "occurs when one person takes the initiative in making contact with others for the purpose of an exchange of valued things" (Burns, 1978:19). Transformational leadership "occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (Burns, 1978:20).

Burns' (1978) concept of transformational leadership led Bass (1985) to perform several studies in complex organizational environments. The goal was to determine if the political science theory had applicability for organization science (Bass, 1985:29). Bass found that "transformational leaders...use one or more [of three] ways" (1990:21) to influence their organizations. The means of interest here (and the means that provided the greatest response variance in the original study (Bass, 1985:209)) is the demonstration of charisma.

Bass developed a list of behaviors and qualities that he theorized represent charismatic leadership in organizations, by examining

"the findings of a series of surveys and on clinical and case evidence" (1990:21). His charismatic parameters are found in two places. First, they are in his 1985 work in the chapter entitled "Charisma." In this chapter, Bass (1985) provides several charismatic parameters. Some of these take the form of propositions that expand on the seven-proposition theory of House (1977). Exhibit 1, "Characteristics of Transformational and Transactional Leaders," in Bass' 1990 work provides some additional information.

1. Leaders identified as charismatic in Bass' studies were able to generate in their followers enthusiasm and loyalty toward the organization (1985:43). Bass also restates House's contention (House, 1977:203) that the charismatic arouses motives appropriate to the mission (Bass, 1985:47). The parameter drawn from this is team-builder.

2. The transformational leader demonstrates charisma to her followers by providing a sense of what is truly important and a strong clarification of the mission (Bass, 1985:43; Bass, 1990:22). Followers recognize this because of the charismatic's ability to link her vision to "the needs, values, and hopes of [the] followers" (Bass, 1985:46). The parameters drawn from this are provides relevance and meaning, perceptive, and visionary.

3. The transformational leader who is charismatic instills pride in his subordinates (Bass, 1985:43; Bass, 1990:22). The followers also reported a sense of well being when around the charismatic leader (Bass, 1985:43). Additionally, as the followers harbor strong feelings of confidence and trust in the charismatic leader, so

the leader builds the self-esteem of the followers by displaying confidence in them and their ability to achieve lofty goals (Bass, 1985:47). The parameter drawn from this is empowering.

4. Because of his charisma, the transformational leader "commands respect from everyone" (Bass, 1985:43) and is "trusted [by his followers] to overcome any obstacle" (Bass, 1985:43). In his later work, Bass uses the words "gains respect and trust" (1990:23). The parameters drawn from this are highly respected and trusted.

5. In Bass' studies of organizational charisma, "charismatic leaders served as symbols of success and accomplishment for their followers" (1985:43). The parameter drawn from this is successful.

6. A strong sense of self-confidence, even in the face of adversity, is called a "universal trait" of charismatic leaders (Bass, 1985:45). The parameter drawn from this are self-confident and unaffected by crises.

7. The charismatic leader is very independent because of a strong inner-direction. Her first loyalty is to her vision since she is convinced of the virtue of her goal. Bass uses the phrase "self-determination" (1985:46). The parameter drawn from this is independent.

8. Followers of a charismatic leader will recognize that they are being called to go beyond the mundane and mediocre. Their leader places before them a call to excellence (Bass, 1985:46). The parameter drawn from this is provides a challenging environment.

9. The charismatic continually involves himself with impression management. His effectiveness relies heavily on the shadow he casts over his followers (Bass, 1985:46). The parameter drawn from this is image conscious.

10. The followers of a charismatic leader will perceive of him as one free to engage in acts previously unseen. Followers may regard these behaviors as too risky to engage in (Bass, 1985:47). This is reminiscent of Conger and Kanungo's (1987) contention that the charismatic will place the cause above his own self-preservation. The parameters drawn from this are unconventional and willing to risk self.

11. Followers should describe their charismatic leaders as verbally skilled, especially in the powers of persuasion. "The charismatic leader may display superior debating skills, technical expertise, and ability to appropriately muster persuasive appeals" (Bass, 1985:58). The parameters drawn from this are persuasive and technically proficient.

*Katz and Kahn (1978).* This theory is another that relies strongly on the behaviors of the leader for its substance. Katz and Kahn (1978) theorized that, within organizations, followers of a charismatic leader do not always evaluate their leader in a precisely objective, calculating manner. Rather, organization members place a strong measure of trust (even, blind trust) in the charismatic leader's goals and programs (Katz & Kahn, 1978:546).

The relationship of trust built between leader and followers can take two different forms according to Katz and Kahn (1978).



(1) Leaders may supply a wishful symbolic solution to the internal conflicts of followers in their persons or programs as in the mysticism of some religious and political leaders.

(2). The ability of the individual in realistically appraising people's conscious needs and formulating a clear program for achieving them may generate emotional excitement about the leader. (Katz & Kahn, 1978:546-547).

These types of relationships should remind the reader of the writings of theorists previously discussed. The first type seems to provide the "phenomenological validity" reported by Boal and Bryson (1988). Note that the leader presents solutions to "conflicts...in their persons," thereby addressing the internal validity discord. The charismatic leader also presents solutions to "conflicts...in...programs," calming the storms that occur in the absence of external validity. The second type has the assessment skills mentioned by Conger and Kanungo (1987), coupled with the ability to select relevant programs that achieve the desired end, another charismatic skill suggested by Boal and Bryson (1988).

The trust mentioned above stems from certain behaviors demonstrated by the leader. Katz and Kahn (1978) in their limited discussion provided five descriptive qualities and behaviors that generate the emotional relationship called charisma.

1. The basis of the charismatic relationship is an overpowering trust in the leader. This goes beyond the "trustworthiness" espoused by Conger and Kanungo (1987). Katz and Kahn propose that the leader is more than worthy; followers trust her even, at times, to the abandonment of reason (1978:545-546). The parameter drawn from this is trusted.

2. To maintain the followers' trust, the charismatic leader must appear nearly superhuman, magical, and infallible. He protects this image by maintaining a social distance between himself and his followers (Katz & Kahn, 1978:546). The parameters drawn from this is distant, image conscious, and successful.

3. The charismatic leader balances this social distance factor by developing a strong rapport and identification with the grass-roots membership. This "membership character in the group being led" (Katz & Kahn, 1978:546) permits the followers to see the leader as one of them and to bond with him (Katz & Kahn, 1978:546). The parameter drawn from this is similar to group members.

4. As mentioned before, the charismatic establishes a sense of harmony between the inner person and the programs that occupy the followers (Katz & Kahn, 1978:546-547). Again, this is very similar to the visionary charismatic as described by Boal and Bryson (1988). Consequently, as before, the parameter drawn from this is provides relevance and meaning.

5. The charismatic is skilled at assessing the needs of the followers and choosing the measures appropriate for the need (Katz & Kahn, 1978:547). This bears resemblance to the assessment skills Conger and Kanungo (1987) describe. So, the parameter drawn from this is perceptive.

*House (1977).* House' charismatic theory was published in an anthology of leadership writings compiled and edited by Hunt and Larson. Though Hunt and Larson did not publish their collection until 1977, House' work is actually a 1976 theory, as the title indicates. House

reviewed the "sociological and political science literature" (1977:190) available up to the time of his theory. The title of his work is also indicative of the temporal nature of this theory. As House (1977) points out, his is not the final word on the subject. It is simply a milestone on the continuum of theory development (House, 1977:207).

Taking a psychological tack, House (1977) sought to do much the same things that this writer is attempting to do from an organizational viewpoint. The major goal was to consolidate all the previous work into one document. It was House' desire that his document would contain an "explanation of charisma" that would prove "testable," so as "to further leadership research" (1977:190).

Owing to his bent toward a psychological basis for examining organizations, House (1977) first developed a catalog of effects produced in the organization and its members by the charismatic leader. This list is concisely presented in table format in Chapter 10 of Yukl's 1989 work, *Leadership in Organizations*. In testimony to the acceptance House' theory (1977) has received, the same information appears verbatim in Bass' 1985 work (1985:44) and Boal and Bryson's 1988 theory (1988:12). The effects themselves are not pertinent to this research effort, but in deference to the wide acceptance of House (1977), it is appropriate to cite an interesting definition found in his theory. House (1977) presents a definition of charismatic leadership that bears a strong resemblance to Conger and Kanungo's later work (1987). According to House, a charismatic leader is

any leader who has... 'charismatic effects' on followers to an unusually high degree. The operational definition of a given

charismatic leader awaits research which will allow one to scale the above specific "charismatic effects." While it is not likely that all charismatic leaders have all of the above "charismatic effects," there are many possibilities that can be examined. For example such effects may be present in a complex interacting manner. Alternatively it may be the sum of, or some absolute level of, selected effects that do indeed differentiate charismatic leaders from others. (1977:192-193)

This is reminiscent of the "constellation" of components Conger and Kanungo hypothesize in their 1987 article (1987:640).

Following this definition, House (1977) details the characteristics and behaviors of the charismatic leader contained in the theories written up to 1976. According to House (1977), these characteristics and behaviors produce the effects mentioned earlier. Since this is true, the following list comes from the contents of the two sections that describe the characteristics and behaviors of charismatic leaders.

1. A leader who achieves charismatic effects possesses an unusual degree of self-confidence (House, 1977:193). The parameter drawn from this is self-confident.

2. Charismatic effects come about when a leader has a predisposition toward dominance (House, 1977:193), "a strong need for power" (Yukl, 1989a:206). The parameter drawn from this is exhibits a strong need for power.

3. A charismatic leader has a "strong conviction in the moral righteousness of his/her beliefs" (House, 1977:193). This conviction should manifest itself through uncompromising devotion to the cause. The parameter drawn from this is highly devoted.

4. Leaders who have charismatic effects have a strong need for influence (House, 1977:194). The parameter drawn from this is exhibits a strong need to influence.

5. The charismatic leader presents a role model to be emulated. The degree to which the leader is imitated is affected by the followers' perception of the leader "as nurturant...and as being successful or possessing competence" (House, 1977:195). The parameters drawn from this are sets an example, concerned for others, successful, and technically proficient.

6. "Leaders who have charismatic effects are more likely to engage in behaviors designed to create the impression of competence and success than leaders who do not have such effects" (House, 1977:197). This should lead the followers to a recognition of the quality, successful, mentioned above. Additionally, a second parameter drawn from this is image conscious.

7. The leader capable of producing charismatic effects will articulate idealistic, purpose-related goals (with strong ties to the shared values, beliefs, and view of the future) rather than process-related goals (House, 1977:197). Since idealistic and visionary are usually given as synonyms, the parameter drawn from this is visionary. The link made to the followers' needs, values, and beliefs suggests the parameter, provides relevance and meaning.

8. Charismatic leaders "communicate high performance expectations for subordinates and exhibit confidence in their ability to meet such expectations" (House, 1977:198). These behaviors enhance

the self-esteem of the followers (House, 1977:198-199). The parameter drawn from this is empowering.

9. "Leaders who have charismatic effects... engage in behaviors that arouse motives relevant to the accomplishment of the mission..." (House, 1977:203). This arousal of specific needs (e.g., for power or affiliation) is especially pertinent to the task ahead and occurs throughout the group. The charismatic leader is able to bring this cohesion and focus to the group members (House, 1977:201-203). The parameter drawn from this is team-builder.

*Zaleznik and Kets de Vries (1975).* These authors presented a psychological profile of the charismatic leader and his antithesis, the consensus leader. This predisposition toward the inner workings of the mind led the authors to label the charismatic leader, "maximum man," and the consensus leader, "minimum man." These labels are not judgmental in terms of right and wrong, good and bad. "There are excellent minimum men, gifted in bringing about consensus on difficult problems through diplomacy and negotiation. And there are genuinely evil maximum men, demagogues like Hitler" (Zaleznik and Kets de Vries, 1975:237). The consensus leadership style is appropriate, desirable, and adequate under normal circumstances. When new challenges, opportunities, or problems face the organization, the charismatic leadership style will provide the needed direction and energy (Zaleznik and Kets de Vries, 1975:231). So, rather than being an indictment or commendation, the authors use these labels to bring attention to the depth or complexity of the personality structure of the two leadership types (Zaleznik and Kets de Vries, 1975:231).

This theory sets the two styles of leadership in juxtaposition. The minimum man is a negotiator, who uses his organizational "radar, picking up opinions, ideas, and impressions" (Zaleznik and Kets de Vries, 1975:237). He gives up his own identity and becomes a product of the organizational milieu. He slips with ease from skin to skin, ensuring his safety, security, and acceptance. The maximum man, however, is his own man, "who follows his own visions rather than the compromises of the group" (Zaleznik and Kets de Vries, 1975:231). He possesses a wealth of self-assurance anchored deep within him by strong convictions and purpose. He is a man of action, giving no quarter and expecting none. Unfortunately, his fervency can sometimes lead to recklessness (Zaleznik and Kets de Vries, 1975:241,244).

In this theory, there are parameters that would cause charismatic attribution to take place for a leader. Finding those "charismatic" personality traits that are visible to followers and observers is the challenge. According to the theory of attribution, it is because a leader exhibits certain traits or behaviors that followers and observers attribute charisma to him or her.

1. As noted above, the leader to whom charisma is attributed does not rely on the group for direction. He carries within himself his own sense of values and vision (Zaleznik and Kets de Vries, 1975:231,242). The parameter drawn from this is independent.

2. Because his sense of mission and morality is deep-rooted, the charismatic leader has a low tolerance for disagreement or dissonance (Zaleznik and Kets de Vries, 1975: 241,249-250). The parameter drawn from this is intolerant of differing opinions.

3. Because of the charismatic leader's strong convictions and self-confidence, she is free to choose innovative methods to achieve her vision (Zaleznik and Kets de Vries, 1975:249-250). As cited before, Zaleznik and Kets de Vries (1975) provide a caveat. The charismatic may prove to be imprudent or reckless in her actions because of her strong focus on her aims (Zaleznik and Kets de Vries, 1975:241,244). The parameters drawn from this are unconventional and reckless.

4. The charismatic leader is aggressive and competitive. This often fosters an environment of aggressiveness and competition within the organization (Zaleznik and Kets de Vries, 1975:234, 236, and 251). The parameter drawn from this is generates a competitive environment.

5. The charismatic leader is direct and outspoken, to the point of being blunt at times (Zaleznik and Kets de Vries, 1975:251,241). Zaleznik and Kets de Vries (1975) leave the impression that the charismatic leader feels strongly enough about his vision and program that he will speak his mind without regard for others' feelings. The parameter drawn from this is forthright.

6. Charismatic leaders "relentlessly pursue a single viewpoint" (Zaleznik and Kets de Vries, 1975:244-245). The parameter drawn from this is tenacious.

7. The force of his personality may cause others to see the charismatic leader as narcissistic and proud (Zaleznik and Kets de Vries, 1975:243). The parameter drawn from this is arrogant.



*Berlew (1974).* According to Berlew (1974), the absence of organizational excitement creates a threat to survival for bureaucratic organizations. Employees leave their jobs seeking something the organization cannot offer. Neither custodial nor managerial leadership styles are adequate for maintaining the organizational excitement that Berlew says is essential (1974:21-22).

Custodial leadership addresses basic needs and values for the employee. Examples presented by Berlew are "food, shelter, security, fair treatment, and human dignity" (1974:22). Custodial leadership changes or improves things like "working conditions, compensation, and fringe benefits" (1974:22). Employee attitudes fall somewhere between anger or resentment and neutrality under custodial leadership (1974:22).

Managerial leadership goes a step further. By focusing on the needs for "membership, achievement, and recognition" (1974:22), managerial leadership raises employee satisfaction. An organization being led in a managerial leadership style will attempt to improve working conditions through job-enrichment, -enlargement, or -rotation, participative management, or management-by-objective. At worst, Berlew expected employee attitudes to be only neutral. At best, the company may have satisfied employees (1974:22).

Berlew (1974) presents charismatic leadership as the alternative that effectively provides the excitement required. Employees are seeking an organizational leadership style that can "...lift people out of their petty pre-occupations...and unify them in pursuit of objectives worthy of their best efforts" (Gardner, 1965:22). Charis-

matic leadership, says Berlew (1974), is exactly what is needed. It addresses the needs for "meaningful work, self-reliance, community, excellence, service, and social responsibility" (Berlew, 1974:22). The improvements charismatic leadership offers focus on the "common vision, value-related opportunities and activities, and supervision which strengthens subordinates" (Berlew, 1974:22). When charismatic leadership is at work in an organization, employees can go beyond satisfaction in the work place to excitement. Charismatic leadership provides the springboard that launches employees beyond themselves. Employees become energized, "totally involved or identified" with the "value-related mission" of the organization, often feeling that they are influencing or "shaping" their world for good (Berlew, 1974:23).

Berlew (1974) says three categories of behavior mark charismatic leadership.

These are:

- \*the development of a "common vision" for the organization related to values shared by the organization's members;
- \*the discovery or creation of value-related opportunities and activities within the framework of the mission and goals of the organization; and
- \*making organization members feel stronger and more in control of their own destinies, both individually and collectively. (Berlew, 1974:23)

Berlew (1974) goes on to develop each of these concepts. The parameters of charisma in an organizational setting are found in the development of the three concepts.

1. The charismatic leader holds a "vision or dream of a better existence" based on the same values espoused by the followers (Berlew, 1974:24). Since a leader holding a vision too far removed

from the hopes of his followers would be seen as mad or irrelevant, and since this closely parallels Conger and Kanungo's view (1987), the parameter drawn from this is visionary. An additional parameter drawn from this is provides relevance and meaning.

2. The leader described by organization members as charismatic will present a vision that is attainable (Berlew, 1974:24). Proposing a goal that cannot possibly achieved would brand the leader as quixotic, subject to the dangerous "Camelot phenomenon" (Berlew, 1974:24). This is very close to Conger and Kanungo's description of leaders who "realistically assess environmental resources and constraints affecting their ability to bring about change within their organizations" (1987:643). So, the parameter drawn from this is, again, perceptive.

3. The charismatic leader will provide opportunities for subordinates to test the limits of their capabilities (Berlew, 1974:24-25). Additionally, the charismatic leader provides "the opportunity to seek true excellence, to produce the very best of something" (Berlew, 1974:26). The parameter drawn from this is provides a challenging environment.

4. The charismatic leader fosters an environment where meaningful relationships flourish (Berlew, 1974:25). The parameter drawn from this is relationship-oriented.

5. A leader is likely to be labelled as charismatic if he exhibits unflinching "honesty and consideration" (Berlew, 1974:26). The parameter drawn from this is morally upright.

6. While managerial leaders are capable of introducing change into an organization, "it takes charismatic leadership to recognize the value relevance of such a [change] and to integrate it with the organization's mission in such a way that it creates and sustains excitement" (Berlew, 1974:26). The charismatic leader is able to take the same programs available to a managerial leader and yet cause them to appear different to the organization members. This is reminiscent of Conger and Kanungo's "unconventional strategies" (1987:642) that the charismatic leader uses to realize his vision of the future. Therefore, the parameter drawn from this is unconventional.

7. A charismatic leader conveys a strong sense of the personal worth of her followers. The charismatic couples this with high expectations for their performance. Under a charismatic leader, subordinates feel the high expectations of their leader are within their grasp (Berlew, 1974:28). The charismatic reinforces this feeling by setting up successes for his followers (Berlew, 1974:29). Associated with this is the willingness of the charismatic leader to stand back, providing help only when asked (Berlew, 1974:28-29). The parameter drawn from this is empowering.

8. Charismatic leadership shows a preference for reward rather than punishment (Berlew, 1974:28). The parameter drawn from this is uses rewards more than punishments.

9. Within the organization, charismatic leaders show a preference for collaboration rather than competition. This stems from the charismatic's ability to identify situations that are unsuited to a competitive environment. The leader will promote the idea that if

one group wins, both win (Berlew, 1974:28). The parameter drawn from this is team-builder.

### *The Theorized Parameters of Charisma.*

The theories examined above contain 37 distinct parameters that the respective authors feel describe the charismatic leaders of organizations. Theoretically, these are the behaviors and qualities of leaders that, when perceived by the organization members, lead to the attribution of charisma.

The next section of this chapter goes on to discuss each parameter and its theorized contribution to the phenomenon of charisma. Included is documentation of the various proponents of the parameter. I have made no particular attempt to weight or rank the parameters. To facilitate this, I arranged the parameters alphabetically. An arrangement of this type serves to emphasize that, until empirical test results are available, I have to consider each theorized parameter equally viable.

*Arrogant.* Zaleznik and Kets de Vries (1975) in their theory of organizational charisma, report the possibility that the charismatic leader may appear arrogant. The strength of the charismatic's personality and his uncompromising commitment to his own vision and program for the organization may lead some to see him as proud or self-infatuated. This is one of several unattractive behaviors or qualities that can mark the charismatic, according to Zaleznik and Kets de Vries (1975) (see forthright, intolerant of differing opinions, reckless and tenacious below).

*Assertive.* According to Conger and Kanungo (1987), the assertive behavior of a leader will cause the attribution of charisma. It would seem this would include confident and aggressive behavior as well as those behaviors that project the leader's belief in his right to be in a leadership role.

*Catalyst for Change.* A charismatic leader is not known for protecting the status quo. Rather, she actively seeks to precipitate change. This tendency of the charismatic to be an agent for change is espoused by Conger and Kanungo (1987).

*Concerned for Others.* Conger and Kanungo (1987) and House (1977) indicate that a leader must demonstrate a deep concern for others if his followers are to attribute charisma to him. The leader demonstrates his concern in at least two ways. Conger and Kanungo allude to the leader's concern for the needs of his followers (1987:644). This presupposes that the leader has made the effort to ascertain what those needs are. It is this effort that demonstrates the leader's concern for his followers. Second, House suggests that a charismatic leader provides a nurturing environment for his followers (1977:195). This demonstrates to the followers that the leader is interested in their growth and welfare.

*Distant.* Followers of a charismatic leader should perceive a distance between themselves and the leader. Katz and Kahn (1978) theorize that the maintenance and acknowledgement of this distance is important for a leader to be judged charismatic. The reason for this distance is the superhuman and exceptional nature of the charismatic. Without the maintenance of sufficient distance between the leader and

his followers, the fallibility and humanness of the leader would begin to show (Katz & Kahn, 1978:546). At that point where the social distance was too small, the truth of the saying "familiarity breeds contempt" would cause the demise of charismatic attribution for the leader.

*Effective.* Boal and Bryson (1988) contend that the charismatic is effective. They expect to see a leader who can identify the tactics that will produce the desired effects. Theoretically, followers should recognize this effectiveness since it reinstates external validity for them.

*Empowering.* Empowerment is the term most often associated with this aspect of charismatic leadership. The followers experience a surge of confidence and pride (Bass, 1980:22) under the nurturing (House, 1977:195) of the charismatic leader. This surge is the result of several distinct actions taken by the leader. The charismatic leader builds his followers' confidence by emphasizing their personal worth (Berlew, 1974:28), setting lofty goals for them (Berlew, 1974:28; House, 1977:198), convincing them they can reach the lofty goals (Berlew, 1974:28; House, 1977:198), setting up success-practice sessions (Berlew, 1974:29), and helping only when asked (Berlew, 1974:28-29).

*Exceptionally Trustworthy.* In Conger and Kanungo (1987) organization members ascribe charisma to the leader because she has proven to be exceptionally trustworthy. The proof of this trustworthiness is in the leader's selfless acts. Followers readily see that the leader

is not consumed with self-interest or self-advancement. Followers are thereby convinced that their leader will not betray their trust.

*Exhibits a Strong Need for Power.* According to House (1977), a leader with a strong need for power will likely be perceived as charismatic. For this to occur in the context of an attributional theory, the leader will appear dominating to the followers in the organization. This presumes (and logically so) that the inner quality "strong need for power" will manifest itself to organization members through outward "dominating" actions.

*Exhibits a Strong Need to Influence.* House (1977) contends that a charismatic leader seeks to exercise control. This behavior springs from a strong need to influence (House, 1977:194). In the context of an attributional theory of charisma, the led should observe this inner quality, "strong need to influence," causing them to attribute charisma to the leader. Theoretically, the charismatic leader should exhibit observable, outward behaviors that demonstrate to organization members that the leader seeks to influence.

*Forthright.* According to Zaleznik and Kets de Vries (1975), organization members surrounding a charismatic leader will find him outspoken. This quality, like many of those identified by these theorists, comes directly from the leader's overwhelming conviction that his vision and plan are best for the organization. Secure in this belief, the charismatic is free to say what he must to ensure each organization member understands the vision and plan and his or her part in it.



*Generates a Competitive Environment.* The followers of a leader labelled charismatic are likely to see his competitiveness in two ways. Zaleznik and Kets de Vries (1975) feel that the charismatic will appear personally competitive, thriving on the exhilaration of the conflict. They also submit the charismatic will foster a competitive outlook in the organization to enhance performance.

*Highly Devoted.* Conger and Kanungo (1987) and House (1977) mention the unswerving determination of the charismatic leader. Charisma is attributed to a leader who demonstrates a clear purpose anchored in a firm belief that the cause is just.

*Highly respected.* Burns (1978) as operationalized for organizational contexts by Bass (1985), says that one important quality of charismatic leaders is the respect accorded them by their followers. Followers should recognize the respect given to their leader.

*Image conscious.* According to Bass (1985) and House (1977), the charismatic leader is aware that his power and authority rely strongly on others' perceptions of his personality, skills, and beliefs. Consequently, he is very protective of his image. Trice and Beyer (1986) and Katz and Kahn (1978) also mentioned the charismatic's fixation with appearing successful. Whether or not, for a truly charismatic leader, this inner quality of image consciousness is hidden by the necessary "charismatic distance" theorized by others (see the parameter, distant, above) is uncertain. However, it may be that followers observe this image consciousness and as a result attribute charisma to the leader.

*Independent.* In the theory forwarded by Zaleznik and Kets de Vries (1975), the charismatic leader is pictured as an independent thinker. The support for his motivations, beliefs, and actions comes from within himself not from the group or organization. Bass' 1985 operationalization of Burns' 1978 theory of transformational leadership contains this parameter also.

*Intolerant of Differing Opinions.* Zaleznik and Kets de Vries (1975) contend that the charismatic leader can appear rigid. This inflexibility results from the inner-direction of the charismatic. Convinced that his vision is correct, the charismatic leader is unlikely to be content with anything less. It is theorized that he will expect this total commitment and unswerving focus from the organization members around him.

Bass (1985) also alludes to this quality of the charismatic leader. He contends that the charismatic will use his persuasive skills to influence those who question his plans for the organization (Bass, 1985:58). This implies that the charismatic leader feels a need to suppress dissent.

*Morally Upright.* The theory of Berlew (1974) tells us that it is important for the attribution of charisma that the leader be seen as morally correct. It may be argued that the standard of morality is peculiar to the organizational context (in fact, Berlew's acceptable moral standard is comprised of "honesty and consideration" (1974:26)). Nonetheless, theoretically, organization members will not attribute charisma to a leader who is seen as morally unfit.

*Perceptive.* Conger and Kanungo (1987), Bass (1985), Katz and Kahn (1978), and Berlew (1974) all theorize that a charismatic leader has an exceptional ability to grasp the realities of the context in which she operates. This perceptiveness extends into several areas. The charismatic leader understands the current limitations and resources (Conger & Kanungo, 1987:643), the "needs, values, and hopes of their followers" (Bass, 1985:46), the receptiveness of the followers to new ideas and programs (Berlew, 1974:24; Katz & Kahn, 1978:547), and the programs that will work effectively given the previous three (Katz & Kahn, 1978:547).

*Persuasive.* Conger and Kanungo (1987) and Bass (1985) argue that the charismatic possesses persuasive skills. According to the 1987 theory, it is critical that the charismatic leader possess these skills if he is to convince potential followers to embrace the leader's dream for the future. This ability to persuade will bring these would-be followers to see the leader as a visionary and to embrace his viewpoint. Bass (1985) also expects the charismatic leader to experience doubting or questioning from de facto followers. Bass contends that the charismatic will use his persuasive skills and technical knowledge to win followers' support for the programs he seeks to implement (1985:58).

*Provides a Challenging Environment.* Bass (1985) and Berlew (1974) report organization members feel challenged by a charismatic leader. The charismatic will place in front of her followers tasks that stretch them to the limits of their skills. Theoretically, this type of leadership will cause the led to attribute charisma to their

leader. Additionally, this leadership behavior can serve to build the confidence of the followers (see empowering above).

*Provides Relevance and Meaning.* This aspect of charismatic leadership is presented by Boal and Bryson (1988), Bass (1985), Katz and Kahn (1978), House (1977), and Berlew (1974). The emphasis here is that the charismatic leader links the followers' value system to the tasks they perform. This provides meaning to the followers' involvement in the organization.

*Reckless.* The charismatic leader may choose risky or dangerous paths to accomplish his ends. This trait, espoused by Zaleznik and Kets de Vries (1975), goes beyond the unconventional behaviors mentioned by several of the other theorists.

*Relationship-oriented.* According to the theory developed by Berlew (1974), organization members should view the charismatic as a "people person" (to use the vernacular). The followers see that the charismatic places high value on the same relationships the followers value. The charismatic leader's interest goes beyond the leader-follower relationship. He actively encourages the development and strengthening of familial bonds (Berlew, 1974:25).

*Self-confident.* The charismatic leader must appear self-confident to his followers. This quality is mentioned by Conger and Kanungo (1987), Bass (1985), and House (1977).

*Sets an example.* Followers will emulate a charismatic leader, according to House (1977). The followers see in the charismatic leader a fitting example by which they can pattern their life, particularly as it relates to the organization. The exemplary character of

the leader consists of a strong people-orientation and a strong mission-orientation, both of which appeal to the followers (House, 1977:195).

*Similar to Group Members.* According to Katz and Kahn (1978), it is important that the leader is viewed as an insider rather than an outsider, sharing similar aspirations, viewpoints, and values with the organization members. Katz and Kahn (1978) maintain the followers must view the leader as similar to the group for the followers to attribute charisma to him. While only Katz and Kahn (1978) use this language in their theory, there is a flavoring of this quality in the parameters visionary, successful, and relevant. Each of these three implies a similarity between the leader and the led.

*Successful.* Boal and Bryson (1988), Trice and Beyer (1986), Katz and Kahn (1978) and House (1977) all feel that charisma is maintained by repeated successes achieved by the leader. Theoretically, followers watch for these successes and use them as a bench mark for the presence of charisma in their leaders. For Bass (1985), the charismatic leader sets the standard by which organization members measure success or achievement.

*Team-builder.* According to Berlew (1974), an organization with a charismatic leader will experience high levels of cohesiveness and communication directed toward goal attainment. The charismatic will encourage a team concept, building bridges among intraorganizational agencies. Theoretically, these team-building activities undertaken by the leader should be noticeable to the organization members and cause the members to view the leader as charismatic.

House (1977) provides another dimension of the charismatic's ability to build team identification in his followers. He theorizes that the charismatic leader is distinct from the noncharismatic leader in his ability to arouse in his followers the needs most effective for mission accomplishment. This ability brings a cohesiveness and focus to the group members, directing them toward the common vision (House, 1977:203). In short, the group members function as a single unit.

Yet another aspect of this team-building skill is Bass' (1985) contention that followers attribute charisma to leaders who arouse excitement for the job and allegiance toward the organization.

*Technically Proficient.* Conger and Kanungo (1987) submit that a charismatic leader must be technically competent in his area of operations. This proficiency enables the leader to deal effectively with the demands of the situation he faces. Operational competence allows the charismatic to select those measures that will help him realize his vision and goals. House (1977) argues that proficiency is important to the attribution of charisma since it provides the foundation for emulation. Followers see in the leader a competence that they seek for themselves. Bass adds that the charismatic leader will use his technical mastery as a primary weapon in programmatic debates (1985:58).

*Tenacious.* Here again is another personal quality of the charismatic advanced in only the theory of Zaleznik and Kets de Vries (1975). Similar to several of the parameters unique to these theorists, the charismatic's conviction that only he fully understands the current situation and the future possibilities produces this charis-

matic quality, tenacity. According to the Zaleznik and Kets de Vries (1975) theory, the charismatic can go beyond the quality, highly devoted, extracted from Conger and Kanungo (1987) and House (1977). The charismatic may doggedly persist in a failing venture or ineffective program (Zaleznik & Kets de Vries, 1975: 244-245). This is the essence of the tenacity pictured here. The conviction that his cause will be vindicated can raise his commitment to his plan to almost obsessive levels (see forthright, arrogant, reckless, and intolerant of differing opinions above).

*Trusted.* Katz and Kahn (1978) and Burns/Bass (1978/1985) address the trust placed in the leader by the followers. This parameter is closely related to the fact that the charismatic leader has proven himself exceptionally trustworthy (see the parameter, exceptionally trustworthy, above). It includes, but goes beyond, the behaviors of the leader. The trustworthiness of the leader is assessed by one individual follower, answered only for that individual, and based on the leadership behaviors observed by that follower. Whether or not the leader is actually trusted, differs in two ways. The assessment can still be done by one individual. However, the individual subject now answers for the group. Does the group act in a way that demonstrates their trust in the leader? Also, the individual reporter is now observing follower actions and measuring whether or not they indicate that the leader is, in fact, trusted by the group's members. This is the other half of the trusting relationship built between the leader and her followers. This parameter implies that it is not enough for a leader to be worthy of trust; the organization

members must be prepared to trust. According to Katz and Kahn (1978) and Burns/Bass (1978/1985), if organization members perceive the leader as trusted, then there is evidence of charismatic attribution.

*Unaffected by Crises.* Conger and Kanungo (1987) assert that the charismatic leader distinguishes himself during unsettled times by demonstrating unparalleled composure. The turmoil does not shake the focus or confidence of a leader labelled charismatic (Bass, 1985; Conger and Kanungo, 1987).

*Unconventional.* The charismatic leader sees the problems, contexts, and solutions differently than others do. Words like novel, radical, and counternormative portray this attribute of the charismatic leader. These word pictures occur in Conger and Kanungo (1987), Trice and Beyer (1986), Bass (1985), Zaleznik and Kets de Vries (1975), and Berlew (1974). Based on inner strength, technical competence, and unmatched commitment the charismatic leader is free to choose goals, programs, and purposes previously unknown to the followers.

*Uses Rewards More Than Punishments.* Berlew's 1974 theory purports that a charismatic leader favors the use of rewards over punishments. This preference should cause the organization members to view the charismatic as a rewarder of their efforts.

*Visionary.* This attribute of charisma occurs in the theories of Conger and Kanungo (1987), Trice and Beyer (1986), Burns/Bass (1978/1985), House (1977), and Berlew (1974). The charismatic leader sees the future as it could or should be. The followers of a charismatic leader share the belief that the vision is both viable and



desirable. Hence, followers label the leader visionary rather than irrelevant or insane.

*Willing to Risk Self.* Charismatic leadership is marked by a willingness to sacrifice self for the sake of the cause. The charismatic's devotion to the goal or vision will cause him to act in ways that appear to the follower to threaten the leader's position or person. This disregard for self-preservation will facilitate the attribution of charisma according to Conger and Kanungo (1987). Bass cites this characteristic from Yukl, stating "charismatic leaders can say things publicly that followers feel privately but cannot express" (1985:47).

#### *Summary*

Bass (1985) provides a fitting closing for this discussion of the attributes of a charismatic leader. He identifies his own writing as a summary of House (1977). It is interesting to note that this narrative from Bass' work includes most of the parameters discussed above.

Imbued with self-confidence in their own competence, conviction in their own beliefs and ideals, and a strong need for power, charismatic leaders are highly motivated to influence their followers. Their self-confidence and strong convictions increase their followers' trust in their leader's judgments. Charismatic leaders engage in impression management to bolster their image of competence, increasing subordinate compliance and faith in them. The charismatic leaders relate the work and mission of their group to strongly held values, ideals, and aspirations shared in common by their organization's culture. In organizational settings, they paint for their subordinate an attractive vision of what the outcomes of their efforts could be. This provides subordinates with more meaning for their work. It arouses enthusiasm, excitement, emotional involvement and commitment to group objectives. Roles are defined in ideological terms that appeal to the subordinates. Charismatic leaders use themselves to set examples for subordinates to

follow. Success as a leader flows from one's charisma. But equally so, the charismatic must continue to demonstrate effectiveness as a leader, that is, that the actions which can be attributed to him are continuing to benefit the community of followers. (Bass, 1985:40)

This chapter has outlined the historical development of charismatic leadership. First, this writer touched on Weber's (1961) view of charismatic authority and the evolution of his idea into the organizational scientists' theories of charismatic leadership. This chapter reviewed each of the theories advanced to explain the charismatic phenomenon. This reviewer extracted from these theories those parameters of organizational charisma pertinent to an attributional focus. The focus of the rest of this thesis effort is to developing a means of measuring the 37 parameters extracted. The goal of this research effort is to produce an instrument that is able to measure adequately the contribution of each parameter to the attribution of charisma.

### *III. Methodology*

This chapter describes the methodology used to develop and validate an instrument that tests the theoretical parameters identified in the literature review. The first section of this chapter reminds the reader of the research objectives as stated in Chapter I, Introduction. A general description of the chosen research methodology follows the research objectives. Next is the research design. This section contains a set of operational definitions related to the independent and dependent variables. The section on research design also provides an overview of the four phases of this research project. Each of the next four sections provides details of one of the four phases: Instrument Choice, Instrument Construction, Instrument Testing, and Instrument Modification. Finally, this chapter concludes with a summary of the assumptions and limitations of the chosen methodology. The goals of this chapter are to ensure the reader has a clear understanding of the rationale for each methodology decision and to enable the reader to retrace this researcher's path.

#### *Restatement of Research Objectives*

It is appropriate that this chapter begin with a restatement of the objectives of this research effort. This will provide focus for the methodology described later in the chapter.

The first objective is to uncover all the theoretical writings that describe the operation of charisma within organizations. This research objective was accomplished in preparing the discussion found in Chapter II, Literature Review.

The second objective is to extract all of the theoretical parameters concerning the behaviors and qualities of the leader that lead to the attribution of charisma. Each of the parameters discovered during the search of the literature was discussed in detail in Chapter II, Literature Review.

The third objective is to develop operational definitions for the theorized parameters. I will meet this objective in this chapter by choosing several word or phrase pairs that accurately portray the meaning intended by the theorist(s) who identified the parameter.

The fourth objective is to conduct and analyze the results of a pilot study that will test the adequacy of the word and phrase pairs in capturing the identified (and perhaps some unidentified) parameters of charisma.

The fifth objective is to incorporate the pairs, found in steps three and four, into an instrument capable of measuring the contribution of leadership behaviors and characteristics to the attribution of charisma.

### *Research Methodology*

The most appropriate method for designing this study is along descriptive lines. As reflected by the research objectives and the literature review, the study of charisma in organizational settings is still in its infancy. While, a chronological perspective would seem to belie this statement, Chapters I and II provided ample evidence for the lack of any real empirical (i.e., scientific) foundation for the eight organizational science theories. As evidenced by the citations provided in the first two chapters, organization scientists still know

little, quantitatively, of the nature of charismatic leadership.

Appropriately then, this work is descriptive.

Descriptive research is used to "describe systematically the facts and characteristics of a given population or area of interest, factually and accurately" (Isaac & Michael, 1971:18). The first task of this thesis was to integrate all the theoretical work into an attribution theory framework. This task was descriptive in nature. Beyond the literature search and integration, this research effort seeks to provide the means to describe both a population and an area of interest. The primary goal is to provide a useful instrument. This instrument should help organization scientists better understand why organization members (the population) attribute charisma to certain leaders (the area of interest).

#### *Research Design*

In keeping with Isaac and Michael's guidance, I designed this research to "collect detailed factual information that describes existing phenomena" (1971:18). The first step in the collection process was to extract the theorized parameters of charismatic leadership that coincide with an attribution theory perspective. The second step is to develop an instrument capable of testing the theoretical parameters.

The development process took place in three phases. The first phase was instrument choice. Once made, this decision led to the construction of the instrument. The third phase was an initial instrument test. This section covers subject selection process and the administration procedures for a pilot study as well as data

collection, recording, processing, and analysis. The fourth phase discussed the plan to incorporate findings from the testing process into the final instrument.

*Operational Definitions.* In the context of attribution theory there are two pertinent sets of definitions that apply here. The first set deals with the dependent variable, charisma. Theorists contend the dependent variable is the result of the attribution process. According to attribution theory, subjects attribute charisma to the leader based on the presence and recognition of certain behaviors and traits of the leader. These behaviors and traits constitute the second set of definitions, the independent variables. The independent variables, or parameters, are visible and recognizable to the followers. These parameters are the subject of the literature review conducted in preparing the second chapter of this thesis.

*Definitions Pertinent to the Dependent Variable:* These definitions apply to the quality, charisma, attributed to some leaders. The quality is dependent, in that, the attribution of charisma is theorized to be the result of some set of behaviors or traits observers see in the leader. As a dependent variable, the term, charismatic leader, functions as the concept to be measured by the instrument under development.

*Charisma.* A subject-defined personal characteristic attributed to a leader the subject knew in an organizational setting, causing the subject to choose that leader as the charismatic leader used to prepare Part Two (Critical Incident) of the instrument.

*Charismatic Leader.* A leader identified by the subject in preparation for completing Part Two (Critical Incident) of the instrument.

*Definitions Pertinent to the Independent Variables.* These definitions apply to the traits or behaviors of leaders. They are the independent variables, in that, it is theorized that the presence of these traits or behaviors will cause observers to label a leader charismatic. In keeping with the accepted distinction between a concept and a construct, each of the independent variables listed below is a construct. This means each of the concepts has been narrowly defined for use in a scientific study (Kerlinger, 1973:28-29). As developed later in the section discussing the semantic differential (Osgood, Suci, and Tannenbaum, 1957), each of these constructs is a theorized dimension of the semantic space occupied by the concept, charismatic leadership.

*Arrogant.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials arrogant - demure, conceited - humble, egotistical - modest, pompous - unassuming, proud - lowly, self-important - self-effacing, haughty - self-deprecating in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Assertive.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials assertive - submissive, aggressive - docile, bold - meek, pushy - retiring, forceful - reserved, insistent - reticent in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Catalyst for Change.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials progressive - conservative, transformational - stagnant, innovative - unchanging, reformational - status quo, and revolutionary - maintainer in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Concerned for Others.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials considerate - inconsiderate, compassionate - unfeeling, concerned for others - unconcerned for others, thoughtful - thoughtless, interested - uninterested, empathetic - apathetic, and attentive to others' needs - disinterested in others' needs in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Distant.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials distant - familiar, remote - approachable, removed - intimate, unknown - well-known, detached - close, and aloof - open in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Effective.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials effective - ineffective, gets results - spins wheels, productive - unproductive, makes a difference - ineffectual, optimizes - suboptimizes, and efficacious - weak in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Empowering.* A theorized charismatic behavior identified in the literature review and measured by the semantic



differentials empowering - smothering, strengthens - weakens, expects a lot - accepts the minimum, builds confidence - undermines confidence, has high expectations - has low expectations, and trusts co-workers - doubts co-workers in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Exceptionally Trustworthy.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials trustworthy - untrustworthy, dependable - undependable, reliable - unreliable, solid - shaky, credible - not credible in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Exhibits a Strong Need for Power.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials dominating - subservient, commanding - obedient, overpowering - submissive, domineering - equalitarian, and leads willingly - leads reluctantly in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Exhibits A Strong Need to Influence.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials seeks to influence - easily influenced, manipulative - often manipulated, controlling - easily controlled, directive - non-directive, influential - uninfluential in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Forthright.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials frank - diplomatic, blunt - discreet, forthright - political, outspoken - tactful, direct - ambiguous, and candid -

evasive in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Generates a Competitive Environment.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials competitive - collaborative, confrontational - cooperative, contentious - obliging, combative - accommodating, and conflict-prone - conflict-averse in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Highly Devoted.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials unwavering - wavering, resolute - vacillating, steadfast - uncertain, constant - double-minded, staunch - easily swayed, and devoted - indifferent in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Highly Respected.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials respected - disreputable, revered - despised, held in high esteem - scorned, honored - ridiculed, and highly regarded - held in contempt in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Image Conscious.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials image conscious - unconcerned with his/her image, concerned with reputation - unconcerned with reputation, pretentious - unpretentious, values appearances - authentic, and puts up a front -

genuine in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Independent.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials independent - dependent, autonomous - relies on others, individualistic - follows the group, self-determining - seeks consensus, self-sufficient - gathers opinions, and opinion giver - opinion seeker in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Intolerant of Differing Opinions.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials discourages different ideas - encourages different ideas, intolerant - tolerant, prejudiced - open-minded, unreceptive - receptive, unwilling to listen - willing to listen, and rejecting - accepting in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Morally Upright.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials principled - unprincipled, righteous - unrighteous, virtuous - unscrupulous, moral - immoral, and ethical - unethical in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Perceptive.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials perceptive - clueless, observant - unobservant, watchful - inattentive, aware - unaware, informed - uninformed, and discerning - oblivious in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Persuasive.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials persuasive - unpersuasive, convincing - confusing, effective communicator - ineffective communicator, logical - illogical, and compelling speaker - noncompelling speaker in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Provides a Challenging Environment.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials challenging - unchallenging, stimulating - suppressing, provoking - restrictive, inspiring - stifling, rousing - restraining, and stirring - repressive in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Provides Relevance and Meaning.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials relevant - irrelevant, provides meaning - meaningless, significant - trivial, in touch - out of touch, illuminates - clouds, and appropriate - inappropriate in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Reckless.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials risky - cautious, dangerous - safe, rash - prudent, reckless - circumspect, and careless - careful in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Relationship-Oriented.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials people-oriented - isolationist, encourages non-work

relationships - discourages non-work relationships, gregarious - indifferent, and a family person - strictly business in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Self-confident.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials confident - hesitant, poised - timid, secure - insecure, certain - uncertain, and assured - shy in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Sets an Example.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials exemplary - non-exemplary, to be imitated - not to be imitated, positive role-model - negative role-model, and the ideal - not ideal in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Similar to the Group Members.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials like me - unlike me, like other members - unlike other members, shares group goals - has dissimilar goals, representative - non-representative, same - different, and member - non-member in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Successful.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials accomplishes - fails, wins - loses, achieves - flounders, succeeds - fails, and triumph - defeat in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Team-Builder.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials encourages alliances - separates, promotes unity - divisive, reconciler - trouble-maker, builds bridges - sows discord, and team-builder - factionist in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Technically Proficient.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials proficient - inept, skilled - amateur, knowledgeable - untaught, expert - novice, and qualified - unqualified in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Tenacious.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials tenacious - yielding, stubborn - easily swayed, persistent - impersistent, obstinate - flexible, and bulldoggish - fluctuating in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Trusted.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials trusted - mistrusted, relied on - doubted, counted on questioned, believed - suspected, and depended on - not depended on in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Unaffected by Crises.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials composed - easily ruffled, poised - agitated, cool - flustered, collected - befuddled, self-possessed - unsettled, and

unflappable - distracted in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Unconventional.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials unorthodox - traditional, unconventional - ordinary, radical - typical, innovative - routine, original - common, and creative - unimaginative in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Uses Rewards More Than Punishments.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials rewarder - punisher, notices good work - notices poor work, praises - upbraids, commends - chides, congratulates - criticizes, and applauds - rebukes in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Visionary.* A theorized charismatic trait identified in the literature review and measured by the semantic differentials idealistic - pragmatic, dreamer - realist, visionary - practical, lofty - mundane, future-oriented - present-oriented, and strategic - tactical in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

*Willing to Risk Self.* A theorized charismatic behavior identified in the literature review and measured by the semantic differentials self-sacrificing - self-preserving, cause-oriented - career-oriented, adventurous-unadventurous, seeks own interests - seeks group interests, and daring - guarded in Part Three (Descriptive Word and Phrase Pairs) of the instrument.

### *Instrument Choice*

This section presents the critical incident technique and semantic differential scales as the two components of the instrument under development. Additionally, this section provides justification for the selection of these two types.

*The Critical Incident Technique.* The critical incident technique was first developed and used by Flanagan and his associates (Flanagan, 1954). The technique hinges on a proper understanding of a critical incident. First, an incident is "any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act" (Flanagan, 1954:327). Flanagan says an incident becomes critical when it "occurs in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects" (1954:327).

The technique can be used to "collect direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems..." (Flanagan, 1954:327). The technique's value is enhanced by the fact that recorders are used who are best able to make direct observations of the behavior of interest (Flanagan, 1954:355). The primary objective of this technique is to obtain a catalog of critical requirements for job performance. Analysis of the recorded incidents allows researchers to determine the recurring themes (actions, qualities, abilities, etc.) that marked success in the task or role under investigation. In this research



project, the recorders are those who observed and interacted with a specific charismatic leader. The role under investigation is that of a charismatic leader.

As Flanagan (1954) points out, the critical incident technique allows for adaptation. Researchers can apply Flanagan's general guidance to the practical problem they are addressing (1954:335). Flanagan (1954) says one can maintain research objectivity through several design criteria. A "statement of general aim" (Flanagan, 1954:337) is used to ensure that the observers agree on the nature or purpose of the role or job function under investigation (Flanagan, 1954:336-337). The specifics of the situation of interest must be well defined. This helps the observer to decide if a specific action applies to the research effort (Flanagan, 1954:338). Then the observer must decide if an observed behavior is relevant to the general aim. This directional aspect is under the discretion of the observer. However, the observer must understand there should be a reasonable expectation that every recorded behavior substantially affects the attainment of the general aim (Flanagan, 1954:338). The next aspect of Flanagan's guidance (1954) addresses the measurement of effect on the general aim. Once the observer determines that a behavior has an effect on the accomplishment of the general aim, the next question he or she must answer is one of degree. The observer must be able to quantify the contributing or detracting effect of each recorded behavior as significant (Flanagan, 1954:338-339). Finally, Flanagan points out that the observers/recorders must be familiar with the

function being studied and should receive adequate training, ensuring they understand the study's purpose (Flanagan, 1954:339).

The recorded incidents constitute the research data. From these incidents, the researcher can summarize the findings. Flanagan emphasizes the practical nature of the findings (1954:355). The researcher should be able to apply the findings in organization settings. Among the uses Flanagan mentions are establishment of job standards, selection criteria, training requirements, and operating procedures (1954:355).

*The Semantic Differential.* Semantic differential instruments can be used to delineate the meaning of a concept (Osgood et al., 1957:20). The use of the semantic differential was developed by Osgood, Suci, and Tannenbaum (1957). The authors' term "semantic space" (Osgood et al., 1957:31) represents the entire range of meaning for a concept. Various dimensions or factors help define the semantic space of the concept (Osgood et al., 1957:31).

By determining the dimensions along which a concept will be tested, a researcher may begin the process of measuring the concept's meaning (Babbie, 1989:376). Each of the dimensions is first represented by a scale (Babbie, 1989:376) or scales (Osgood et al., 1957:78-79), consisting of a pair of polar opposites that are "linear" and that "pass through the origin" (Osgood et al., 1957:79).

Here are examples. Handsome-ugly could be used as an adjective pair. The two words are opposites, one having a positive connotation and the other a negative one. Terse-wordy appears to be a pair of opposites but each word has a negative connotation. This violates the

supposition that the adjectives are linear opposites. To pass through the origin, the relationship between terse and wordy would have to be nonlinear.

The pair-scales are incorporated into an instrument using Likert-like scaling. This allows the subject to indicate agreement or disagreement with the polar extremes (Babbie, 1989:376).

Factor analysis of the completed instruments allows the researcher to determine those dimensions that contribute the greatest amount to the concept's meaning. Osgood calls this contribution "differentiating power" (1969:32). The more powerful dimensions of the concept are the primary basis for definition of the semantic space. "The purpose of...factoring work is to discover the 'natural' dimensionality of the semantic space, the system of factors which together account for the variance in meaningful judgments..." (Osgood et al., 1957:31).

As laid out by Osgood, Suci, and Tannenbaum (1957), the semantic differential has "greater rigor and structure than other question formats" (Babbie, 1989:376). This makes its use attractive for descriptive research. Additionally, as stated before, organizational scientists are still theorizing the parameters of charismatic leadership. As noted, the semantic differential is well-suited to defining a concept. In this case the concept is "charismatic leader." The parameters extracted from the theoretical literature are ideal to serve as the dimensions to be tested. Each of the parameters can be converted into a construct with a specific scientific definition for testing purposes (Kerlinger, 1973:28-29) by using the semantic differ-

ential. Factor analysis of the semantic differential results should provide an empirical basis for determining that one, some, or all of the theorized parameters (or some new ones) provide "maximal differentiating power" (Osgood, 1969:32) with regard to charismatic leadership. And with this empirical basis may come the ability "to bring some order out of semantic [and theoretical] chaos" (Osgood, 1969:32).

### *Instrument Construction*

This section explains the details of instrument construction for the pilot study. Presented first is the critical incident technique. Following that come the details of the semantic differential scale development. The instrument used in the pilot study appears in Appendix A.

*Critical Incident.* For the instrument under development, I included the critical incident technique as Part Two (Critical Incident). The written instructions asked the subjects to summarize one incident. The incident was to reflect the normal operation of one leader the subject felt was charismatic. This serves as a substitute for the "statement of general aim" mentioned by Flanagan (1954). While there may be a shared understanding of the general aim, purpose, or nature of a charismatic leader, no comparative standard is available. So, there is no way to measure objectively any agreement or disagreement among the observers. This is true since the operational definition is subject-peculiar. The definition is internalized as a model in each subject, and therefore becomes the only valid definition.

Additionally, I gave no defining characteristics for "charismatic leader" either in the written instructions or in verbal clarification. This format provides several distinction advantages. These advantages involve semantic space, bias, and focus.

Regarding semantic space, using the critical incident in this manner encourages the subject to map out the important qualities of a charismatic leader. In his mind, the subject will sort through his many memories searching for a leader that meets the subject's criteria for charismatic. In doing so, the subject begins to build boundaries around the semantic space. Additionally, the subject rejects certain leaders, finding them noncharismatic. This process allows each subject to select those leadership characteristics he or she feels are particularly important to the attribution of charisma (or that provide "maximal differentiating power").

Regarding bias, this format prevents the instrument from prejudicing the subject. There is no definition provided for charismatic leadership. There is no allusion made to certain charismatic qualities. Consequently, the dependent variables are not compromised. The subject works from a personal definition and understanding of charisma and attributes charisma based on his or her own understanding of the term. In addition, this format allows each subject to choose his or her own charismatic leader. The alternative approach is to focus the subject on a generally acknowledged charismatic, for example, President John F. Kennedy. The researcher then would ask the subject to explain why he or she felt the leader was charismatic. While appealing at first glance, this approach introduces bias in at least two

forms. First, this format assumes, perhaps erroneously, that each subject saw charismatic qualities in the leader. Second, the results would not be generally applicable to charismatic leadership. The results would define the semantic space for "the charismatic leader, President John F. Kennedy."

Regarding focus, the critical incident provides the basis for operationalizing charisma. Measuring the dimensions of the semantic space of charismatic leadership without selecting a specific leader would provide theoretical definition, not operational definition, of charisma. Each subject would provide his or her own reactions to the tested parameters found in the semantic differential portion of the instrument. In contrast, the form of the critical incident employed here ensures the subject focuses on one leader who is charismatic in the subject's eyes. This allows the instrument to measure the operation of charisma (as embodied in one known charismatic leader). Flanagan addresses this important capability of the critical incident technique, citing the improvement this provides over a mere list of desirable qualities (1954:329). Also from Flanagan, "reporting of facts regarding behavior is preferable to the collection of interpretations, ratings, and opinions based on general impressions" (1954:355).

Flanagan's second principle (1954), situation specification, was also incorporated into this instrument. The written instructions asked the subject to summarize one incident involving the charismatic leader that fairly described the way he or she operated.

The principle of relevance was incorporated using an assumption consistent with attribution theory. The instrumentation design assumes that if one asks a subject to describe a typical incident involving a charismatic leader, the recorded behaviors contained in the summary contributed to the attribution of charisma.

I've also assumed the significant effect of the behaviors. Given the subject chose to record certain behaviors to describe the normal operation of a known, charismatic leader, I've assumed that these behaviors contribute to the attribution of charisma at a significant level.

Finally, this use of the critical incident technique follows Flanagan's guidance (1954) about the observers. Completion of the incident satisfies, by implication, the need to have observers who are familiar with the role or function being researched. Any subject who can crystallize his or her conception of a charismatic leader and then measure past, known leaders selecting one to write about has sufficient knowledge to aid descriptive research. Since the recorded incidents are not the basis for description in the instrument under development, the training required is minimal. I included written instructions specifying the need to pick one incident involving one leader.

And so, after the completion of Part Two (Critical Incident) of the instrument, each subject has operationalized charisma in one leader of his or her choosing. Essentially, each subject has been placed back into a relationship that was charismatic by his or her own definition. Each subject has selected the salient features of charis-

ma as he or she understands it and is prepared to present his or her understanding of operational charisma in Part Three (Descriptive Word and Phrase Pairs), the semantic differential scales.

*Semantic Differential.* The goal is to transfer the parameters of charismatic leadership contained in the theories into a usable instrument. As explained under, *Instrument Choice*, the semantic differential is well suited to descriptive research.

The first step in constructing a semantic differential is to select the concept or concepts to be tested (Isaac & Michael, 1971:103; Kerlinger, 1973:569; Osgood et al., 1957:77). All three sources just cited use the term "stimuli" as a synonym for concepts. Subjects are to respond to the stimulus being measured by the word pairs (Osgood et al., 1957:77). Either single words or "unitary semantic concepts" (Osgood et al., 1957:77) are legitimate for testing. Charismatic leadership falls into the latter category. Therefore step one, concept selection, was completed when the "unitary semantic concept," charismatic leadership, was chosen.

The second step in constructing a semantic differential is selection of scales. In most instances, researchers will select scales made up of polar opposite adjective pairs taken directly from the work of Osgood, Suci, and Tannenbaum (1957). The adjective pairs will represent the three main factors these researchers identified (Kerlinger, 1973:570). However, "an investigator may wish to use scales of factors other than the three main ones" (Kerlinger, 1973:570). In this case, one should be careful to select scales that represent the factors of interest (Osgood et al., 1957:80).



When selecting scales, there are two primary considerations. The scales should first be representative of the factor. This "factorial composition" (Osgood et al., 1957:78) is generally accepted to mean a pair is strongly loaded on one factor but not on others in the instrument (Isaac & Michael, 1971:103; Kerlinger, 1973:570-571). Second, the scales should be relevant to the concept being measured (Osgood et al., 1957:78-79). This relevance must be confirmed through testing. The researcher may discover unexpected relationships between scales and the concept being tested (Isaac & Michael, 1971:103).

There are also two secondary considerations (secondary relative to the previous two). The first is the need for "semantic stability" (Osgood et al., 1957:79). This consideration implies a lack of ambiguity in the scale adjectives. The second has been mentioned before. "Scales should be linear between polar opposites and pass through the origin" (Osgood et al., 1957:79).

Beginning with the shortened parameter descriptions, I performed a thesaurus search for synonyms and antonyms. Where the parameter was a phrase, I began with key words in the phrase. Wherever possible, the pairs used to represent each parameter were single words. At times single words were not sufficient to capture the flavor of the parameter. Therefore, I used phrases where needed. Precedence for the use of phrases is found in Snider and Osgood (1969:621-622). A small sample of pairs for each factor is desirable (Osgood et al., 1957:78). While Osgood, Suci, and Tannenbaum (1957) provide no clarification of small in the context just cited, they chose three pairs for each factor and three is commonly accepted (Kerlinger,

1973:570-571). The factor score is an average of the three scale scores. This approach provides more representative and reliable factor scores (Osgood et al., 1957:78).

While a "face validity"-selection of three pairs for each factor would be acceptable (Isaac & Michael, 1971:103), I chose a more rigorous method for building the final instrument. As explained later, the method chosen is to pre-test the pairs to find those that for each parameter are most strongly loaded on that factor and weakly loaded on the others. Additionally, Cronbach's coefficient alpha (Cronbach, 1951) will be used to identify pairs that decrease the reliability of the tested factors. Since this process will cause attrition, the goal of the first selection stage was to find a minimum of five word or phrase pairs to represent each of the 37 parameters identified in the literature.

In an iterative process, I presented the list of parameters with the associated scales to my thesis advisor and two other professors in the organizational sciences. Each of the professors helped to expand the list and to edit ambiguous pairs. Some words were rearranged to provide better linearity between opposites. The final list consisted of 203 semantic differentials. The lowest number of differentials used for any factor was four. Several had seven. The 203 differentials are found in the operational definitions found earlier in this chapter.

In addition to the 203 untested differentials representing the 37 untested factors, I included 12 additional scales in the instrument prepared for the pilot study. These 12 scales represented Evaluative,

Potency, and Activity factors. I included scales for these three factors because of the previous findings reported by Osgood, Suci, and Tannenbaum (1957).

In every instance in which a widely varied sample of concepts has been used, or the concept variable eliminated as in forced-choice among the scales, the same three factors have emerged in roughly the same order of magnitude. A pervasive evaluative factor in human judgment regularly appears first and accounts for approximately half to three-quarters of the extractable variance. ... The second dimension of the semantic space to appear is usually the potency factor, and this typically accounts for approximately half as much variance as the first factor... The third dimension, usually about equal to or a little smaller in magnitude than the second, is the activity factor... (Osgood et al., 1957:72-73)

I used four scales for each of the three factors. I made scale selection based on factor loading reported by the Osgood, Suci, and Tannenbaum (1957:43). These 12 scales were included to provide a standard against which to measure the new, untested scales (Kerlinger, 1973:571; Osgood et al., 1957:79).

The final step in constructing a semantic differential is to "arrange the polar adjective pairs so that the favorable, potent, or active end of the scale is randomly placed in a right or left position to avoid position habits in the response pattern" (Isaac & Michael, 1971:103). If a factor is being measured using six pairs, this principle would lead one to place three synonyms for the factor on the left side of the Likert scale and three on the right. Assume two pairs, handsome-ugly and beautiful-grotesque, are being used to measure the evaluative factor. To avoid habit patterns, the pairs could be placed in the instrument like this:

|           |   |   |   |   |   |   |   |           |
|-----------|---|---|---|---|---|---|---|-----------|
| handsome  | — | — | — | — | — | — | — | ugly      |
| grotesque | — | — | — | — | — | — | — | beautiful |

I accomplished this using a random number generator. A random number, a five digit decimal, was placed next to each of the 215 pairs. I reversed those pairs with an odd fifth digit. For reversed pairs, the half of the pair synonymous to the parameter appears on the right side of the scale. The random numbers were then arranged in ascending order and this determined the order for pairs in the instrument.

Osgood, Suci, and Tannenbaum report an expected completion time of an hour for a 400-item test (1957:80). With 215 scales the probability of subject fatigue or interest loss seemed high. Accordingly, I blocked the 215 scales into three groups of 55 and one of 50. These were placed into four instrument versions of slightly differing formats. The first version began with scale 1 and ended with scale 215. The second began with scale 56. Scales 1 to 55 moved to the end. The third began with scale 111. Scales 1 to 110 appeared in the second half. The final version began with item number 166. Scales 1 to 165 made up the final three-fourths of the instrument. This procedure placed each of the groups of pairs at the end of one-fourth of the instruments to be administered.

The reader can find a copy of version 1, as administered, in Appendix A. The three slightly modified versions can be pictured by the reader by comparing version 1 to the description above.

### *Instrument Testing*

This section will cover several aspects of the test conducted with the instrument described above. First, the reader will find information concerning the population and sample selection. The next

topic is field procedures. Then, the discussion turns to the collection, recording, processing, and analysis of the data.

*Population and Sample Selection.* My goal was to construct an instrument useful in organizations. Obviously, the phrase, in organizations, implies a broad range of use. Broad is achievable. Universal is not. There are certain limitations to the applicability I sought for this instrument.

I am targeting a large group of organizational contexts, but not an unlimited one. The first, and perhaps overly obvious, limitation on the applicability is that the organization members have a working knowledge of the English language. As analyzed by Rightwriter 4.0, a Que Software product, the semantic differentials have a readability index of 9.76. The introduction and instructions have a readability index of 8.98. This implies that for adequate understanding, subjects should read English at a 10th grade level (Que Software, 1990:7-5).

The second limitation imposed is one of maturity. I have chosen to address the instrument to those organizations whose members are of college age or older. This assumes that these organization members have developed an adequate experience base. From this base the subjects can successfully form an image of charismatic leadership and identify at least one charismatic leader.

The third and last limitation is cultural. I have made no attempt to make this instrument applicable across cultures. The organizations that should be able to use this instrument are characterized by the normal implications of the terms, Western or American.

With these limitations addressed, the reader can now understand the following definitions.

*Population.* Adult, English-speaking members of culturally western organizations.

*Sample.* Military and civilian members of the student body of the Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio. Members of the student body, faculty and staff of Cedarville College, a liberal arts college in Cedarville, Ohio. Employees of Eaton Corporation, Cutler-Hammer Division based in Milwaukee, Wisconsin. Employees of Wayne Pump, Incorporated of Fort Wayne, Indiana. Civilian acquaintances of the author and residents of the Dayton, Ohio metropolitan area. Family and civilian acquaintances of family members residing in Fort Wayne, Indiana.

*Sampling Unit.* One individual meeting the criteria established above.

*Sampling Frame.* Volunteers meeting the criteria established above. The United States Air Force establishes the requirement for voluntary participation.

Because of the requirement for volunteers, the sample was taken strictly as a convenience sample. Class time was used to administer the questionnaire at the Air Force Institute of Technology (AFIT). Professors in the Department of Communication and Organizational Sciences used the instrument as a teaching tool in related subject areas. Volunteers were solicited at all other locations on an informal basis. The subject was introduced and voluntary participation was requested.

From the definitions above, it is apparent that the size of the population could well exceed 50 million. With a population of this size, a sample of 384 would provide significance at the .05 level (Krejcie & Morgan, 1970:610). However, within the time and volunteer-only constraints there was little hope of reaching this level of significance. Considering the reality of the situation, a level of .10 was chosen. This was deemed adequate since this was to be a pilot study in descriptive research (Isaac & Michael, 1971:69). Therefore, a sample of 68 was required (Krejcie & Morgan, 1970:607). A balanced number of military and civilian subjects was a goal. However, the proximity of the military population was used to advantage to ensure that 68 viable questionnaires were available for analysis.

*Field Procedures.* Instruments were administered in each of the five sample areas. At AFIT, 148 copies were provided to the faculty members who used them in classroom settings. I was not present in the classroom. The 148 instruments were divided approximately equally among the four versions described in the instrument construction narrative. I also asked eight members of my graduate program option to complete the instrument. In total, 156 instruments went out at AFIT. One copy of each version was sent to a representative in Milwaukee. I instructed him to make copies as required and distribute approximately equal numbers of each version. He was able to find 16 volunteers. Other guidance given this representative was that subjects should find the written instructions self-explanatory. He was to act only as a distribution and collection point. Twenty copies (5 of each version) were delivered to a similar representative in Fort

Wayne. I passed out the instruments completed in the Dayton area and at Cedarville College. Approximately 30 went out to Dayton area residents and another 30 went out in the Cedarville area. All subjects except those in a classroom setting at AFIT were allowed to take the instrument and complete it unsupervised. Subjects were told that there was no need to use a dictionary for completing the semantic differential scales. He or she could simply respond based on his or her own understanding of the word or phrase. Each subject was given approximately a week to fill out the instrument and collection instructions to ensure the completed questionnaires reached me.

*Data Collection, Recording, Processing, and Analysis.* Each individual's response was collected on the questionnaire. In keeping with the written instructions in the instrument, check marks were recorded directly on the paper with the scales. Each set of 215 responses then constituted a record.

As completed questionnaires came in, I added the record to an ASCII file using a text editor. The completed ASCII file became the input file for processing on SAS System for Elementary Statistical Analysis.

One goal of this analysis is to find the strongest scales for measuring each of the factors extracted from the existing theoretical literature. Cronbach's coefficient alpha was computed for each scale and parameter as a measure of internal-consistency reliability. This use is appropriate for a single administration of a test (Allen & Yen, 1979:80). This type of analysis must be done to ascertain the relationship between the scales and factors (Isaac & Michael, 1971:103).



It would be unwise to proceed with untried scales until factor identity is determined (Kerlinger, 1973:571).

Another goal was to identify those parameters (whether already theorized or not) that contribute to the attribution of charismatic leadership. This goal was to be achieved at the descriptive level so that appropriate word and phrase pairs could be included in an instrument for others to use in further research. I used two methods to achieve this goal.

First, I used the factor analysis procedure available in SAS. Factor analysis is used to explain common variance among intercorrelated measures and to identify the dimensions of a construct (Isaac & Michael, 1981:158, 201-202). There are two branches of factor analysis, exploratory and confirmatory (Kim & Mueller, 1978:11). Exploratory analysis is used for early, descriptive research, when a researcher has data but no suspicions of the factors that may be contained in the data. Confirmatory analysis should be used under two conditions. As explained in Kim and Mueller (1978) and Long (1983), confirmatory factor analysis should be used when the researcher has some basis for believing the data contains certain factors and wishes to confirm the belief. Long also says that confirmatory factor should be used if the researcher cannot "assume that all common factors are correlated or...that all common factors are uncorrelated" (1983:12).

Such is the case with this application. The 37 factors extracted from the literature serve as the factors believed to be present in the data. Also, there is no empirical evidence to support an assumption of correlation or non-correlation. Confirmatory factor analysis

is designed to test the presence, absence, and interrelationship of the hypothesized factors in the data.

However, this research design is descriptive and so true confirmatory factor analysis is not yet appropriate. The entire process involves the specification, identification, estimation and assessment of fit for a confirmatory factor model (Long, 1983:3). So, while resembling confirmatory factor analysis, this application still has many characteristics of exploratory factor analysis.

Long recommends the use of one of three methods in confirmatory factor analysis, "unweighted least squares (ULS), generalized least squares (GLS), and maximum likelihood (ML)" (1983:57). One of the accepted methods, "ULS[,...] corresponds to the method of iterated principal factors...in exploratory factor analysis" (Long, 1983:57). Consequently, I chose the principal factors method of analysis (Harmann, 1967). The principal factors method is "more objective and precise" (Kerlinger, 1973:667) than visual analysis of graphed clusters.

The principal factors method is mathematically satisfying because it yields a mathematically unique solution of a factor problem. Perhaps its major solution feature is that it extracts a maximum amount of variance as each factor is calculated. In other words, the first factor extracts the most variance, the second the next most variance, and so on. [The principal factors method also allows a researcher] to determine: (1) how many factors there are; (2) what tests are loaded on what factors; and (3) the magnitudes of the test loadings. (Kerlinger, 1973:667,669)

Once I had chosen to use the principal factors method, I had the option of using orthogonal rotation methods, oblique rotation methods, or no rotation of the matrices. I chose to rotate the matrices with the varimax method. For more information on the mathematical details

of these options I would refer the reader to Kerlinger (1973), Harman (1967), Cattell (1952), or Thurstone (1947).

In this context it is important to know why I made the choices I made. First, rotation of the factor matrices is considered essential to an adequate understanding of the relationships between factors and tests. Second, orthogonal rotation provides a more universal application of the data analysis. Oblique rotation can cause factors to be unique to the data analyzed, hence diminishing replicability and external validity (Kerlinger, 1973:671-674).

The standard I used for establishing significance for extracted factor was an eigenvalue of 1.0 or greater after principal component analysis. This type of analysis identifies the degree to which scales (or several scales grouped as hypothesized factors) contribute to (load on) each of the significant factors.

The second method I used to identify the parameters that contribute to the attribution of charismatic leadership was the Pearson product moment coefficient of correlation (McClave and Benson, 1988:514-516). Subjective analysis of the degree of correlation between the theorized parameters was intended to act as confirmation of the more rigorous results achieved with factor analysis.

Using the results of the two analysis methods, I rearranged the scales to the new factors (those with eigenvalues greater than 1.0 and those found to be significantly correlated and therefore representing a single factor). Then, again using SAS, I determined Cronbach's coefficient alpha for each new factor with its associated scales. Results of this analysis are presented in the next chapter.

### *Instrument Modification*

Using the results of the statistical analysis performed on the data, the instrument used in the pilot study will be modified for others to use in future studies of charismatic leadership. I will use the results of factor analysis to select those of the 37 original parameters (or new factors) that provide the strongest contribution to the semantic space. I expect this analysis will lead to a mid-range theory with empirical support. Ideally, several factors will be found for this mid-range theory. Each of the factors and the strongest pairs for measuring them will be included in the modified, final instrument. Again, more details of the modification are found in the next chapter.

### *Methodological Assumptions and Limitations*

The first and most crucial assumption I made in developing this methodology has its roots in the nature of the theories. I have assumed that all of the theorists share essentially the same idea when they say "charismatic leadership." This is directly related to the "unitary semantic concept" (Osgood et al., 1957:77). This entire methodology hinges on the assumption that all adult members of western civilization share a concept called charismatic leadership. This sharing by no means implies agreement. In fact, since there already eight published theories, it is clear there are many facets to the semantic space. I do believe that these differing views can be empirically amalgamated and that the dimensions of the semantic space can be defined. I have assumed that what each theorist has written about is substantively related to what each of the other theorists and

each potential subject comprehends. Each may have a slightly different view of the semantic space. However, when summed across the population the boundaries are fixed and measurable.

Closely related to the notion of a shared semantic space is the idea that the concept, charismatic leadership, has been affirmed for each person by at least one experience. This assumption is the foundation for the use of the critical incident. The ability of the subject to picture flesh and blood when completing this instrument is crucial to the operationalization of charisma.

I have also assumed that there is a difference between the military and civilian communities. I sought civilian subjects based on my belief that using strictly military members would operationalize military charismatic leadership, not the more universal concept, charismatic leadership.

There are limitations to this methodology in spite of efforts to use highly appropriate tools. The first is inherent in the task. This subject deals essentially with meaning and interpretation. Regardless of the rigor in the instrument and its administration, scales and factors are open to the interpretation of each reader (Isaac & Michael, 1971:103; Kerlinger, 1973:571).

Another limitation has already been mentioned above. My sampling method is subject to criticism on at least three fronts. First, the entire sample is voluntary. And so, there is no way to know if the responses of respondents (volunteers) would differ significantly from non-respondents (non-volunteers). Second, the convenience method of sampling drew a very high percentage of subjects from military

backgrounds. This is reported in the findings of the next chapter. Third, the number of respondents permits only a .10 level of significance in interpreting the findings.

The final subject to cover in this section is that of threats to internal and external validity. Campbell and Stanley present eight threats to internal validity and four threats to external validity (1963:5-6). Due to the design of this study only four of the former and two of the latter need to be addressed here.

The first pertinent threat to internal validity is subject history (Campbell & Stanley, 1963:5). Isaac and Michael (1971) provide a perspective beyond that of Campbell and Stanley (1963). Campbell and Stanley mention the threat posed by an historical experience that occurs between the first and second measurements (1963:5). Isaac and Michael contend history can threaten validity because of differences introduced by development outside the intra-test period (1971:32). Regularly, this thesis has repeated that each subject should focus on a specific, known, charismatic leader. In fact, I have assumed that in the personal development of each subject, he or she was acquainted with a charismatic leader. Assuming this historical experience implies a threat to validity if the assumption is violated. I countered this threat by examining the critical incident response of each subject. If the subject made it obvious he or she could not recall dealing with a charismatic leader, I did not include the semantic differential responses. I've reported these incidents in the next chapter.

The second pertinent threat is the maturation process (Campbell & Stanley, 1963:5). Subjects could conceivably lose interest, tire, or learn during the course of completing this instrument with its 215 scales. I countered this threat by designing the four versions detailed above. This method helps to spread the maturation process equally across the scales.

The third threat to validity I needed to combat was one introduced by the measuring instrument (Campbell & Stanley, 1963:5). More specifically, I needed to ensure that as I recorded the 215 responses from each record into the ASCII data file that I did not introduce error. It took about five minutes to transfer each record from the written instrument to the data file. I found that after an hour of entering responses I was backing up more frequently to correct input errors. I then limited myself to 10 records or about 45-50 minutes per session.

The last threat to internal validity is the interaction between selection and each of the three threats discussed above (Campbell & Stanley, 1963:5). The only interaction of concern here is the interaction between selection and history. Because of the requirement that all subjects be volunteers I was unable to counter this threat. It is possible that some non-volunteers did not participate because of an inability to recall an experience with a charismatic leader. There is no way to measure the effect of this threat to validity.

The first threat to external validity is "interaction effects of selection biases and the experimental variable" (Campbell & Stanley, 1963:6). The particular nuance of this threat that is applicable here

concerns the representativeness of the sample. Does the predominance of subjects with a military background jeopardize any attempt to generalize the findings? Are the responses from non-military organizational contexts adequate to restore representativeness? Since the goal is to understand the concept, does it matter if many of the selected leaders were observed in military settings? I believe that the concept, charismatic leadership, as theorized is a shared concept. Understanding and definition of the semantic space around the concept take place over time. Regardless of the present organizational affiliation, I believe that the concept of charisma is a western, learned one only slightly flavored by the nature of one's present vocation. Therefore, I believe this methodology successfully overcomes the threat presented by the selection procedures.

The last threat is also one to external validity. Campbell and Stanley call it the threat of "reactive effects of experimental arrangements" (1963:6). While I have not introduced a treatment, per se, to the subjects, this threat should be addressed. There is a danger in assuming the instrument developed here will exhaustively describe the concept, charismatic leadership. Such a generalization is not appropriate. I have attempted to construct an instrument that would test 37 theorized parameters. Subjects are limited in the ability to respond by the scales I have used to represent each hypothesized factor. If there are additional factors to charismatic leadership, subjects will find no way to include these in the responses provided.



### *Summary*

After reading this chapter, the reader should understand the descriptive nature of this research effort. The reader should recognize that the desired outcome of this project is an instrument that will serve to test the theorized parameters of organizational charismatic leadership. The chapter just completed operationalizes both the dependent variable, charisma, and the independent variables, the 37 parameters extracted from the eight existing organizational science theories. The operationalization assumes the tenets of attribution theory to be true.

The reader should also know why the critical incident technique and semantic differential scales were used to operationalize the experimental variables. The critical incident was adapted for use in this context in accordance with Flanagan's principles (1954). This researcher used accepted construction practices in building the semantic differential scales. The instrument measures the concept, charismatic leadership, as embodied in an individual known to the subject, using 203 scales of polar opposites representing 37 parameters of factors. Four scales for each of three known factors were included for stability. The reader should remember that subjects completed a pilot study designed to be significant at the .10 level. This research plan then includes an analysis of the available data to modify the initial instrument.

The reader should recall that this methodology assumes a shared understanding of and a widespread experience with charismatic leadership. Remember also that there are inherent limitations in this

methodology. These limitations are primarily associated with semantic interpretation and sampling difficulties. This methodology addresses most major threats to internal and external validity. One of each type threat goes unchallenged by this methodology. Selection procedures leave the interaction between selection and history unaddressed. Finally, the instrument is not a universal test of the concept, charismatic leadership. It only tests the parameters extracted from the theories and identified during the factor analysis segment of this research project.

#### IV. Findings

This chapter presents the findings of the research effort described in the previous chapter. The first section covers findings related to the administration of the initial instrument. Demographic data, response rates, and related material are examples of these findings. Then the results of reliability calculations and factor analysis are presented for each of the tested parameters. These findings are then consolidated in a section that discusses the composition of the factors extracted under factor analysis. Following this section I present the findings of a more subjective approach to deriving factors. Having described the composition of each factor derived by this method, in the final section I present the findings of reliability calculations performed to select the semantic differentials to test these parameters.

##### *Statistics Related to the Initial Administration of the Instrument*

In this section the reader will find demographic, response, and other findings related to the initial administration of the instrument. For convenience, the material appears in tabular form wherever possible.

*Response Rates.* Table 1 summarizes the response rates obtained in this administration. Note that while 148 copies were provided to AFIT instructors, as reported in Chapter III, only 104 were returned. This is not related to response rates. Extra copies were provided

intentionally to ensure that each instructor had more than enough instruments. I received 44 unused surveys back from the instructors.

Table 1. Response Rates

|                    | Sent Out | Returned | %     | CUM % |
|--------------------|----------|----------|-------|-------|
| AFIT (Classroom)   | 104      | 104      | 100.0 | 100.0 |
| AFIT (Option Mbrs) | 8        | 5        | 62.5  | 97.3  |
| Milwaukee          | 16       | 14       | 87.5  | 96.1  |
| Fort Wayne         | 20       | 10       | 50.0  | 89.9  |
| Dayton             | 30       | 13       | 43.3  | 82.0  |
| Cedarville College | 30       | 10       | 33.3  | 75.0  |
| Totals             | 208      | 156      | 75.0  | 75.0  |

Of the 156 responses received, 146 were used for reliability and factor analysis. The remaining 10 were unusable for various reasons. Four individuals returned the instrument explaining they felt inadequate or unqualified to complete it. Six others, all from classroom settings at AFIT, said in Part Two (Critical Incident) that they had never known a charismatic leader but would complete the semantic differential reflecting their opinions of what a charismatic leader should be. These were rejected since these subjects were unable to operationalize the concept of charismatic leadership.

*Return Rates for the Four Versions of the Instrument.* Of the 146 instruments, I received 40 of version 1, 36 of version 2, 31 of version 3, and 39 of version 4. I used the Chi-Square test of multinomial probabilities for one-dimensional count data (McClave and Benson, 1988:1004-1013) to test the null hypothesis that the probability of return for the four versions was equal. This assumes that the

instrument versions were distributed in equal numbers (a valid assumption) and that one individual's decision to return or not return the instrument was independent of all others' decisions (a possibly less valid assumption). With an  $\alpha = .10$  and degrees of freedom = 3, the critical value of  $\chi^2 = 6.25139$ . Since the test statistic,  $X^2$ , for my data equals 1.342466, I am unable to reject the null hypothesis that the probabilities are equal.

*Demographic Data.* The group of subjects who completed the 146 usable surveys can be characterized generally as mature and well-educated. This was no surprise since the bulk of the subjects were United States Air Force officers enrolled in a masters program. The characterization of mature and well-educated corresponds with the research goal of determining the semantic space of charismatic leadership as seen by adults. Table 2 summarizes the demographic information as provided by the subjects.

#### *Reliability and Factor Analysis Procedures*

The first step I took was to measure the reliability of each set of semantic differentials. This was done using Cronbach's alpha. In general, where the reliability coefficient for testing any parameter could be improved by removing a word or phrase pair, I removed the scale. I did this to ensure that the best measure for each theoretical factor was available before proceeding with the confirmatory factor analysis phase of the research.

Once I had reached the point where I was measuring each as well as it could be given the available data, I defined the theorized factor using the remaining, strongest pairs. The method used to

incorporate the pair-scores into a single factor-score was simple averaging. This method is recommended by Osgood, Suci, and Tannenbaum (1957:78). These factors represented by their average pair-scores

Table 2. Demographic Statistics

| Demographies                |  |       |      |
|-----------------------------|--|-------|------|
| Age (3 did not respond)     |  | Years |      |
| Mean                        |  | 33.22 |      |
| Standard Deviation          |  | 7.80  |      |
| Minimum                     |  | 20.00 |      |
| Maximum                     |  | 65.00 |      |
| Highest Education Completed |  | #     | %    |
| No Response                 |  | 3     | 2.1  |
| Grade School                |  | 0     | 0.0  |
| High School                 |  | 5     | 3.4  |
| Tech/Assoc. Degree          |  | 6     | 4.1  |
| College Degree              |  | 96    | 65.8 |
| Masters Degree              |  | 24    | 16.4 |
| Masters Degree Plus         |  | 12    | 8.2  |
| Race                        |  |       |      |
| No Response                 |  | 3     | 2.1  |
| Native American             |  | 1     | 0.7  |
| Asian/Pacific Islander      |  | 3     | 2.1  |
| Black                       |  | 3     | 2.1  |
| Hispanic                    |  | 5     | 3.4  |
| White                       |  | 130   | 89.0 |
| Other                       |  | 1     | 0.7  |
| Gender                      |  |       |      |
| No Response                 |  | 3     | 2.1  |
| Male                        |  | 120   | 82.2 |
| Female                      |  | 23    | 15.6 |

were the input for confirmatory factor analysis. This step corresponds to the "specification of the confirmatory factor model" (Long, 1983:18). The factor analysis output I obtained showed six factors with an eigenvalue exceeding 1.0. For each of the parameters discussed later in this chapter loadings are presented for each of the six factors. The obvious question then becomes one of interpretation. How are the factor loadings to be interpreted?

Factor loadings are not hard to interpret. They range from -1.00 through 0 to +1.00, like correlation coefficients. They are interpreted similarly. In short, they express the correlations between the tests and the factors" (Kerlinger, 1973:662).

Determining the significance of loadings is another issue. According to Kerlinger (1973:662), there is no consensus on evaluating the standard error. Some establish the standard error just as if using the correlation coefficient,  $r$ ; others set arbitrary levels at .30 or .40; still others calculate the standard error using the inverse of the square root of the sample size. I have chosen the first method yielding a standard error of .208. The second method was rejected because of its lack of rigor. I rejected the third method because the calculated standard error (.083) was not nearly as conservative as the first. I felt it better to err on the conservative side.

Load figures associated with the parameters and the six factors can be either positive or negative. This third issue in interpretation is addressed in Kim and Mueller:

What is the meaning of the signs of the factor loadings?

The sign itself has no intrinsic meaning, and in no way should it be used to assess the magnitude of the relationship between

the variable and the factor. However, signs for variables for a given factor have a specific meaning relative to the sign for other variables; the different signs simply mean that the variables are related to that factor in opposite directions. For this reason it is advisable to code the variables in the same direction before factor analyzing them (1978:77)

An example from the context of this study may help to clarify this guidance. The parameter, arrogant, has a loading of -0.67581 for Factor 1. The interpretation can be phrased in two parallel forms. A high composite score for arrogance, obtained by averaging the appropriate semantic differential scale scores, reduces the overall score for the first factor that contributes to the attribution of charisma. There is a negative correlation between perceived arrogance and attributed charisma. Second, if the scales were reversed they would in effect measure the opposite of perceived arrogance or, in a word, humility. This reverse-scoring would also change the sign of the loading. There would be a positive correlation between perceived humility and attributed charisma.

Finally, interpretation should go beyond statistical significance. Some sort of judgment must be made based on meaningfulness (Kim & Mueller, 1978:56). This judgmental analysis of the factor composition can be found in this chapter after the presentation of each parameter.

This general discussion lays the foundation for the parameter-by-parameter discussion that follows. Actual statistics for each parameter are presented below.



### *Findings for Each Theoretical Parameter*

The format will be similar for each of the following subsections. Tables will be used to present all statistics. The first set of statistics will be the overall alpha for the parameter, the correlation of each pair to the total set of pairs, and the alpha achieved if individual scales were deleted. Then, I provide the final alpha and scales maintained to measure the parameter. Finally, I give the loadings associated with the parameter and each of the six factors.

#### *Arrogant.*

Table 3. Initial Cronbach's Alpha Statistics  
Parameter = Arrogant

| Alpha for Standardized Variables = 0.837955 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| pompous - unassuming                        | 0.568164               | 0.818970                 |
| conceited - humble                          | 0.707378               | 0.796644                 |
| arrogant - demure                           | 0.680667               | 0.801313                 |
| egotistical - modest                        | 0.705206               | 0.797326                 |
| self-important - self-effacing              | 0.579198               | 0.817412                 |
| haughty - self-deprecating                  | 0.647712               | 0.806610                 |
| proud - lowly                               | 0.262561               | 0.863778                 |

Table 4. Final Cronbach's Alpha and Retained Pairs  
Parameter = Arrogant

| Overall Alpha for Standardized Variables: 0.863778   |
|--|
| Scales Retained (6): pompous - unassuming, conceited - humble, arrogant - demure, egotistical - modest, self-important - self-effacing, and haughty - self-deprecating |

Arrogance still seems to be the quality being measure by the remaining word and phrase pairs. As shown in Table 5, the parameter, arrogant, loads significantly in Factors 1, 2, and 3. However, in Factors 1 and 3, the scales need to be reverse-scored to deal with the minus sign.

Table 5. Factor Loadings  
Parameter = Arrogant

| FACTOR1  | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5  | FACTOR6  |
|----------|---------|----------|---------|----------|----------|
| -0.68192 | 0.38876 | -0.24378 | 0.11087 | -0.13553 | -0.01712 |

*Assertive.*

Table 6. Initial Cronbach's Alpha Statistics  
Parameter = Assertive

| Alpha for Standardized Variables = 0.784222 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| aggressive - docile                         | 0.592479               | 0.736916                 |
| insistent - reticent                        | 0.489369               | 0.762231                 |
| forceful - reserved                         | 0.528172               | 0.752845                 |
| assertive - submissive                      | 0.515131               | 0.756018                 |
| pushy - retiring                            | 0.498849               | 0.759954                 |
| bold - meek                                 | 0.573454               | 0.741677                 |

Since deleting any of the semantic pairs would reduce the reliability of the overall measure, the initial set of six pairs and the corresponding alpha remain unchanged. Also, the description of this parameter remains unchanged.

As Table 7 shows, assertiveness loads significantly on Factor 2.  
A lack of assertiveness loads significantly on Factor 5.

Table 7. Factor Loadings  
Parameter = Assertive

| FACTOR1  | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5  | FACTOR6 |
|----------|---------|----------|---------|----------|---------|
| -0.18907 | 0.81302 | -0.01737 | 0.07757 | -0.30007 | 0.09647 |

*Catalyst for Change.*

Table 8. Initial Cronbach's Alpha Statistics  
Parameter = Catalyst for Change

| Alpha for Standardized Variables = 0.713332 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| transformational - stagnant                 | 0.447694               | 0.674729                 |
| reformational - status quo                  | 0.314523               | 0.726017                 |
| revolutionary - maintainer                  | 0.544613               | 0.634890                 |
| innovative - unchanging                     | 0.532337               | 0.640056                 |
| progressive - conservative                  | 0.524589               | 0.643299                 |

A second iteration of the reliability calculation showed that removing transformational - stagnant improved the alpha by 0.004308. This change was not included in the factor analysis calculations.

Table 9. Final Cronbach's Alpha and Retained Pairs  
Parameter = Catalyst for Change

|   |
|---|
| Overall Alpha for Standardized Variables: 0.726017  |
| Scales Retained (4): transformational - stagnant, revolutionary - maintainer, innovative - unchanging, and progressive - conservative |

The four retained scales still adequately represent the concept, catalyst for change. Factor loadings for this parameter are found in Table 10. The parameter, catalyst for change, contributes significantly to Factors 1 and 2. The reverse-scored scales measuring conservatism and protection of the present system load significantly on Factors 3 and 4.

Table 10. Factor Loadings  
Parameter = Catalyst for Change

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4  | FACTOR5 | FACTOR6  |
|---------|---------|----------|----------|---------|----------|
| 0.35553 | 0.49044 | -0.23099 | -0.62159 | 0.00659 | -0.04747 |

*Concerned for Others.*

Table 11. Initial Cronbach's Alpha Statistics  
Parameter = Concerned for Others

| Alpha for Standardized Variables = 0.867200                 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                                 | Correlation with total | $\alpha$ if item deleted |
| thoughtful - thoughtless                                    | 0.728503               | 0.836165                 |
| considerate - inconsiderate                                 | 0.767747               | 0.830610                 |
| empathetic - apathetic                                      | 0.534393               | 0.862512                 |
| interested - uninterested                                   | 0.334021               | 0.887805                 |
| concerned for others - unconcerned for others               | 0.782303               | 0.828530                 |
| attentive to others' needs - disinterested in others' needs | 0.744787               | 0.833870                 |
| compassionate - unfeeling                                   | 0.621132               | 0.850968                 |

For this parameter I discovered that after removing the pair, interested - uninterested, I could further improve the reliability

coefficient by 0.009389 by removing another pair. Table 12 summarizes the next iteration of the reliability coefficient calculations. As the table shows, removing the pair, empathetic - apathetic, further improves the reliability.

Table 12. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Concerned for Others

| Alpha for Standardized Variables = 0.887805                 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                                 | Correlation with total | $\alpha$ if item deleted |
| thoughtful - thoughtless                                    | 0.720174               | 0.865511                 |
| considerate - inconsiderate                                 | 0.773381               | 0.856811                 |
| empathetic - apathetic                                      | 0.516452               | 0.897194                 |
| concerned for others - unconcerned for others               | 0.785363               | 0.854827                 |
| attentive to others' needs - disinterested in others' needs | 0.773380               | 0.856811                 |
| compassionate - unfeeling                                   | 0.660037               | 0.875129                 |

Table 13. Final Cronbach's Alpha and Retained Pairs  
Parameter = Concerned for Others

|   |
|---|
| Overall Alpha for Standardized Variables: 0.897194  |
| Scales Retained (5): thoughtful - thoughtless, considerate - inconsiderate, concerned for others - unconcerned for others, attentive to others' needs - disinterested in others' needs, and compassionate - unfeeling |

Concern for others is still an adequate summary of the concept measured by the five remaining word and phrase pairs. A perceived concern for others is a highly significant contributor to the overall score for Factor 1, as can be seen in Table 14. This parameter has no other significant loadings.

Table 14. Factor Loadings  
Parameter = Concerned for Others

| FACTOR1 | FACTOR2  | FACTOR3  | FACTOR4  | FACTOR5 | FACTOR6 |
|---------|----------|----------|----------|---------|---------|
| 0.87623 | -0.15188 | -0.01153 | -0.04570 | 0.08040 | 0.05816 |

*Distant.*

Table 15. Initial Cronbach's Alpha Statistics  
Parameter = Distant

| Alpha for Standardized Variables = 0.762192 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| distant - familiar                          | 0.716703               | 0.668420                 |
| removed - intimate                          | 0.660721               | 0.684512                 |
| aloof - open                                | 0.448200               | 0.741935                 |
| remote - approachable                       | 0.651645               | 0.687083                 |
| detached - close                            | 0.508479               | 0.726226                 |
| unknown - well-known                        | 0.104435               | 0.823263                 |

I discovered that by removing one more pair (aloof - open, in addition to unknown - well-known) the reliability would increase another 0.001020, but this improvement was not incorporated into the factor analysis step.

Table 16. Final Cronbach's Alpha and Retained Pairs  
Parameter = Distant

|  |
|--|
| Overall Alpha for Standardized Variables: 0.823268   |
| Scales Retained (5): distant - familiar, removed - intimate, aloof - open, remote - approachable, detached - close |

The remaining pairs still represent distance. As shown in Table 17, the parameter, distant, loads significantly on Factors 1, 4, and 5. However, the scales should be reverse-scored in Factor 1 to reflect a closeness, not distance.

Table 17. Factor Loadings  
Parameter = Distant

| FACTOR1  | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5 | FACTOR6 |
|----------|---------|----------|---------|---------|---------|
| -0.66538 | 0.09507 | -0.00434 | 0.24000 | 0.47964 | 0.03823 |

*Effective.*

Table 18. Initial Cronbach's Alpha Statistics  
Parameter = Effective

| Alpha for Standardized Variables = 0.780529 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| optimizes - suboptimizes                    | 0.406922               | 0.776762                 |
| productive - unproductive                   | 0.676011               | 0.709640                 |
| gets results - spins wheels                 | 0.636917               | 0.719912                 |
| efficacious - weak                          | 0.214388               | 0.813857                 |
| effective - ineffective                     | 0.653326               | 0.715622                 |
| makes a difference - ineffectual            | 0.623528               | 0.723368                 |

For this parameter I found that after removing the pair, efficacious - weak, I could further improve the reliability by 0.022839 by removing another pair. Table 19 summarizes the next iteration of the reliability calculations. As the table shows, removing the pair, optimizes - suboptimizes, further improves the reliability.

Table 19. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Effective

| Alpha for Standardized Variables = 0.819857 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| optimizes - suboptimizes                    | 0.403373               | 0.842696                 |
| productive - unproductive                   | 0.699740               | 0.757956                 |
| gets results - spins wheels                 | 0.672161               | 0.766376                 |
| effective - ineffective                     | 0.655376               | 0.771445                 |
| makes a difference - ineffectual            | 0.643577               | 0.774984                 |

Table 20. Final Cronbach's Alpha and Retained Pairs  
Parameter = Effective

|  |
|--|
| Overall Alpha for Standardized Variables: 0.842696   |
| Scales Retained (4): productive - unproductive, gets results - spins wheels, effective - ineffective, makes a difference - ineffectual |

The retained scales still measure effectiveness. Table 21 contains the factor loadings for this parameter. Both Factors 1 and 2 show significant loadings for the parameter, effective. However, the level of significance is substantially higher in Factor 1.

Table 21. Factor Loadings  
Parameter = Effective

| FACTOR1 | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5  | FACTOR6  |
|---------|---------|---------|---------|----------|----------|
| 0.75354 | 0.29257 | 0.04086 | 0.06048 | -0.00470 | -0.16586 |



*Empowering.*

Table 22. Initial Cronbach's Alpha Statistics  
Parameter = Empowering

| Alpha for Standardized Variables = 0.753929  |                        |                          |
|--|------------------------|--------------------------|
| Semantic Differential Scale                  | Correlation with total | $\alpha$ if item deleted |
| trusts co-workers - doubts coworkers         | 0.485468               | 0.720562                 |
| empowering - smothering                      | 0.563365               | 0.699132                 |
| expects a lot - accepts the minimum          | 0.235429               | 0.784148                 |
| strengthens - weakens                        | 0.586310               | 0.692667                 |
| has high expectations - has low expectations | 0.522717               | 0.710413                 |
| builds confidence - undermines confidence    | 0.588838               | 0.691951                 |

For this parameter I discovered that after removing the pair, expects a lot - accepts the minimum, I could further improve the reliability by 0.022428 by removing another pair. Table 23 summarizes the next iteration of the reliability coefficient calculations. As the table shows, removing the pair, has high expectations - has low expectations, further improves the reliability.

Table 23. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Empowering

| Alpha for Standardized Variables = 0.784148  |                        |                          |
|--|------------------------|--------------------------|
| Semantic Differential Scale                  | Correlation with total | $\alpha$ if item deleted |
| trusts co-workers - doubts co-workers        | 0.566166               | 0.741807                 |
| empowering - smothering                      | 0.608171               | 0.727731                 |
| strengthens - weakens                        | 0.605857               | 0.728514                 |
| has high expectations - has low expectations | 0.360066               | 0.806576                 |
| builds confidence - undermines confidence    | 0.675218               | 0.704628                 |

Table 24. Final Cronbach's Alpha and Retained Pairs  
Parameter = Empowering

|   |
|---|
| Overall Alpha for Standardized Variables: 0.806576  |
| Scales Retained (4): trusts co-workers - doubts co-workers, empowering - smothering, strengthens - weakens, builds confidence - undermines confidence |

Unfortunately, both pairs representing one component of empowerment have been removed. This component is the establishing of high goals for the organization members. The remaining pairs still measure the parameter, empowering, in several key aspects but some of the richness of this parameter is lost. The retained scales cover the aspects of personal pride and confidence the followers of a charismatic leader theoretically feel. I feel the concept being measured, while not totally complete, is still, empowering. Empowering is only loaded significantly on Factor 1 as Table 25 shows.

Table 25. Factor Loadings  
Parameter = Empowering

| FACTOR1 | FACTOR2  | FACTOR3  | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|----------|----------|----------|----------|---------|
| 0.86378 | -0.03373 | -0.04759 | -0.10627 | -0.00956 | 0.10540 |

*Exceptionally Trustworthy.*

Table 26. Initial Cronbach's Alpha Statistics  
Parameter = Exceptionally Trustworthy

| Alpha for Standardized Variables = 0.896532 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| dependable - undependable                   | 0.678059               | 0.888399                 |
| solid - shaky                               | 0.578544               | 0.909321                 |
| trustworthy - untrustworthy                 | 0.838413               | 0.852691                 |
| credible - not credible                     | 0.835731               | 0.853309                 |
| reliable - unreliable                       | 0.805313               | 0.860268                 |

I discovered that by removing one more pair (dependable - undependable, in addition to solid - shaky) the reliability coefficient would increase another 0.002749, but this improvement was not incorporated into the factor analysis step.

Table 27. Final Cronbach's Alpha and Retained Pairs  
Parameter = Exceptionally Trustworthy

|   |
|---|
| Overall Alpha for Standardized Variables: 0.909321  |
| Scales Retained (4): dependable - undependable, trustworthy - untrustworthy, credible - not credible, reliable - unreliable |

The scale retained to measure this concept adequately describe the original phrase, exceptionally trustworthy. As shown in Table 28.

the parameter, exceptionally trustworthy, loads significantly in Factors 1, 3, and 4. All three loadings are positive though the loading on Factor 1 is substantially higher than the others.

Table 28. Factor Loadings  
Parameter = Exceptionally Trustworthy

| FACTOR1 | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6 |
|---------|---------|---------|---------|---------|---------|
| 0.83150 | 0.01087 | 0.28968 | 0.21881 | 0.13029 | 0.16169 |

*Exhibits a Strong Need for Power.*

Table 29. Initial Cronbach's Alpha Statistics  
Parameter = Exhibits a Strong Need for Power

| Alpha for Standardized Variables = 0.716121 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| overpowering - submissive                   | 0.617346               | 0.608205                 |
| commanding - obedient                       | 0.559758               | 0.603148                 |
| dominating - subservient                    | 0.600962               | 0.615536                 |
| domineering - equalitarian                  | 0.398445               | 0.698225                 |
| leads willingly - leads reluctantly         | 0.227074               | 0.761106                 |

Table 30. Final Cronbach's Alpha and Retained Pairs  
Parameter = Exhibits a Strong Need for Power

|   |
|---|
| Overall Alpha for Standardized Variables: 0.761106  |
| Scales Retained (4): overpowering - submissive, commanding - obedient, dominating - subservient, domineering - equalitarian |

The retained pairs adequately cover the original concept of exhibiting a strong need for power. As shown in Table 31, this parameter has significant loadings in Factors 1, 2, and 5. However,

in Factors 1 and 5 the parameter is a significant contributor in its reverse-scored form.

Table 31. Factor Loadings  
Parameter = Exhibits a Strong Need for Power

| FACTOR1  | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5  | FACTOR6 |
|----------|---------|----------|---------|----------|---------|
| -0.45535 | 0.66685 | -0.04329 | 0.16681 | -0.23045 | 0.01338 |

*Exhibits a Strong Need to Influence.*

Table 32. Initial Cronbach's Alpha Statistics  
Parameter = Exhibits a Strong Need to Influence

| Alpha for Standardized Variables = 0.569457 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| manipulative - often manipulated            | 0.316184               | 0.520787                 |
| influential - uninfluential                 | 0.185711               | 0.591360                 |
| directive - non-directive                   | 0.273437               | 0.544586                 |
| seeks to influence - easily influenced      | 0.434865               | 0.451120                 |
| controlling - easily controlled             | 0.447567               | 0.443343                 |

After removing the pair, influential - uninfluential, I found that the reliability could be improved again by removing, directive - non-directive. The improvement was 0.046874 as shown in Table 33. This improvement was incorporated into the factor analysis computation.

Table 33. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Exhibits a Strong Need to Influence

| Alpha for Standardized Variables = 0.591360 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| manipulative - often manipulated            | 0.383031               | 0.511720                 |
| directive - non-directive                   | 0.211411               | 0.638234                 |
| seeks to influence - easily influenced      | 0.404979               | 0.494345                 |
| controlling - easily controlled             | 0.507522               | 0.409403                 |

Table 34. Final Cronbach's Alpha and Retained Pairs  
Parameter = Exhibits a Strong Need to Influence

|  |
|--|
| Overall Alpha for Standardized Variables: 0.638234   |
| Scales Retained (3): manipulative - often manipulated, seeks to influence - easily influenced, controlling - easily controlled |

Exhibits a strong need to influence is still an adequate description of the concept contained in the three retained pairs. As Table 35 shows, this parameter is significantly loaded on three factors. Factor 2 is highly significant. Factors 4 and 6 also show significant positive loadings.

Table 35. Factor Loadings  
Parameter = Exhibits a Strong Need to Influence

| FACTOR1  | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5 | FACTOR6 |
|----------|---------|----------|---------|---------|---------|
| -0.16881 | 0.71226 | -0.17738 | 0.22807 | 0.06081 | 0.22767 |

*Forthright.*

Table 36. Initial Cronbach's Alpha Statistics  
Parameter = Forthright

| Alpha for Standardized Variables = 0.612838 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| forthright - political                      | 0.395660               | 0.547867                 |
| direct - ambiguous                          | 0.296289               | 0.588033                 |
| candid - evasive                            | 0.247999               | 0.606751                 |
| blunt - discreet                            | 0.366754               | 0.559783                 |
| outspoken - tactful                         | 0.304224               | 0.584908                 |
| frank - diplomatic                          | 0.466208               | 0.517969                 |

Since deleting any of the semantic pairs would reduce the reliability of the overall measure, the initial set of six pairs and the corresponding alpha remain unchanged. Of course then, the description of this parameter also remains unchanged.

The factor loadings for this parameter are found in Table 37. There are no significant negative loadings associated with the six factors. There are two significant positive loadings as seen in Factors 2 and 3. The latter is highly significant.

Table 37. Factor Loadings  
Parameter = Forthright

| FACTOR1  | FACTOR2 | FACTOR3 | FACTOR4  | FACTOR5  | FACTOR6  |
|----------|---------|---------|----------|----------|----------|
| -0.03224 | 0.38075 | 0.69621 | -0.06515 | -0.12643 | -0.19984 |

*Generates a Competitive Environment.*

Table 38. Initial Cronbach's Alpha Statistics  
Parameter = Generates a Competitive Environment

| Alpha for Standardized Variables = 0.736353 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| contentious - obliging                      | 0.418532               | 0.720239                 |
| competitive - collaborative                 | 0.266633               | 0.773246                 |
| confrontational - cooperative               | 0.598139               | 0.651508                 |
| conflict-prone - conflict-averse            | 0.594718               | 0.652880                 |
| combative - accommodating                   | 0.642129               | 0.633628                 |

In a second iteration, I found the reliability coefficient for measuring this parameter could be improved by removing a second pair. Table 39 demonstrates that a 0.029192 improvement results when contentious - obliging is removed along with competitive - collaborative.

Table 39. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Generates a Competitive Environment

| Alpha for Standardized Variables = 0.773246 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| contentious - obliging                      | 0.407751               | 0.802438                 |
| confrontational - cooperative               | 0.641285               | 0.683501                 |
| conflict-prone - conflict-averse            | 0.614731               | 0.697894                 |
| combative - accommodating                   | 0.651982               | 0.677638                 |



Table 40. Final Cronbach's Alpha and Retained Pairs  
Parameter = Generates a Competitive Environment

|   |
|---|
| Overall Alpha for Standardized Variables: 0.802438  |
| Scales Retained (3): confrontational - cooperative, conflict-prone - conflict-averse, combative - accommodating |

The loss of the two original pairs does not compromise the intended meaning for this parameter. Generates a competitive environment is still appropriate.

As seen in Table 41, the parameter, generates a competitive environment, provides significant contributions to Factors 1, 2, and 3. For Factor 1, the semantic scales should be reverse-scored to reflect the generation of a cooperative environment.

Table 41. Factor Loadings  
Parameter = Generates a Competitive Environment

| FACTOR1  | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6 |
|----------|---------|---------|---------|---------|---------|
| -0.57738 | 0.55931 | 0.29177 | 0.05980 | 0.10181 | 0.05255 |

*Highly Devoted.*

Table 42. Initial Cronbach's Alpha Statistics  
Parameter = Highly Devoted

| Alpha for Standardized Variables = 0.661988 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| steadfast - uncertain                       | 0.554136               | 0.558300                 |
| staunch - easily swayed                     | 0.230018               | 0.674819                 |
| constant - double-minded                    | 0.287866               | 0.655647                 |
| resolute - vacillating                      | 0.467387               | 0.582192                 |
| devoted - indifferent                       | 0.454449               | 0.596971                 |
| wavering - unwavering                       | 0.371808               | 0.626734                 |

Table 43. Final Cronbach's Alpha and Retained Pairs  
Parameter = Highly Devoted

|  |
|--|
| Overall Alpha for Standardized Variables: 0.674819   |
| Scales Retained (5): steadfast - uncertain, constant - double-minded, resolute - vacillating, devoted - indifferent, wavering - unwavering |

The five remaining pairs accurately capture the idea behind this parameter. The parameter, highly devoted, loads significantly on Factors 1 and 2. Both loadings are positive as seen in Table 44.

Table 44. Factor Loadings  
Parameter = Highly Devoted

| FACTOR1 | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6 |
|---------|---------|---------|---------|---------|---------|
| 0.63547 | 0.39406 | 0.16558 | 0.16189 | 0.12670 | 0.14310 |

*Highly Respected.*

Table 45. Initial Cronbach's Alpha Statistics  
Parameter = Highly Respected

| Alpha for Standardized Variables = 0.911927 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| revered - despised                          | 0.718596               | 0.903982                 |
| held in high esteem - scorned               | 0.764579               | 0.894583                 |
| highly regarded - held in contempt          | 0.851564               | 0.876291                 |
| honored - ridiculed                         | 0.783589               | 0.890643                 |
| respected - disreputable                    | 0.762587               | 0.894994                 |

Table 45 shows that deleting any of the semantic pairs would reduce the reliability of the overall measure. So, the initial set of five pairs, the corresponding alpha, and the descriptive phrase for the parameter remain unchanged.

The factor loadings for this parameter are found in Table 46. A highly significant positive loading is associated with Factor 1. This is the only significant loading for the parameter, highly respected.

Table 46. Factor Loadings  
Parameter = Highly Respected

| FACTOR1 | FACTOR2  | FACTOR3  | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|----------|----------|----------|----------|---------|
| 0.88549 | -0.09237 | -0.05503 | -0.00042 | -0.05356 | 0.17159 |

*Image Conscious.*

Table 47. Initial Cronbach's Alpha Statistics  
Parameter = Image Conscious

| Alpha for Standardized Variables = 0.372449             |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                             | Correlation with total | $\alpha$ if item deleted |
| concerned with reputation - unconcerned with reputation | 0.379479               | 0.641920                 |
| values appearances - authentic                          | 0.542003               | 0.567209                 |
| pretentious - unpretentious                             | 0.335144               | 0.661084                 |
| puts up a front - genuine                               | 0.451535               | 0.609672                 |
| image conscious - unconcerned with his/her image        | 0.426801               | 0.620897                 |

As seen in Table 47, removing any of the semantic pairs would reduce the reliability of the measure for this parameter. So, the initial set of five pairs, the corresponding alpha, and the parametric description remain unchanged.

The factor loadings for this parameter are found in Table 48. The table shows three significant loadings, one positive and two negative. The positive loading is found on Factor 4. A highly significant negative loading is associated with Factor 3. The second negative loading is on Factor 1. For these two factors the scales should be reverse-scored to reflect a measuring of genuineness and lack of concern for personal image.

Table 48. Factor Loadings  
Parameter = Image Conscious

| FACTOR1  | FACTOR2  | FACTOR3  | FACTOR4 | FACTOR5 | FACTOR6 |
|----------|----------|----------|---------|---------|---------|
| -0.42386 | -0.08139 | -0.68552 | 0.25312 | 0.09250 | 0.19687 |

*Independent.*

Table 49. Initial Cronbach's Alpha Statistics  
Parameter = Independent

| Alpha for Standardized Variables = 0.657398 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| individualistic - follows the group         | 0.204583               | 0.677522                 |
| self-sufficient - gathers opinions          | 0.493391               | 0.575467                 |
| independent - dependent                     | 0.261294               | 0.658723                 |
| opinion giver - opinion seeker              | 0.505624               | 0.470786                 |
| self-determining - seeks consensus          | 0.478274               | 0.581209                 |
| autonomous - relies on others               | 0.398539               | 0.610749                 |

Table 49 provides the basis for removing the pair, individualistic - follows the group. After removing that pair, I found that the reliability coefficient could be improved again by removing, independent - dependent. The gain in reliability was 0.021299 as shown in Table 50.

Table 50. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Independent

| Alpha for Standardized Variables = 0.677522 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| self-sufficient - gathers opinions          | 0.513659               | 0.589198                 |
| independent - dependent                     | 0.260768               | 0.698821                 |
| opinion giver - opinion seeker              | 0.509250               | 0.591252                 |
| self-determining - seeks consensus          | 0.466160               | 0.611051                 |
| autonomous - relies on others               | 0.418479               | 0.632388                 |

Table 51. Final Cronbach's Alpha and Retained Pairs  
Parameter = Independent

|  |
|--|
| Overall Alpha for Standardized Variables: 0.698821   |
| Scales Retained (4): self-sufficient - gathers opinions, opinion giver - opinion seeker, self-determining - seeks consensus, autonomous - relies on others |

The remaining pairs have a slightly different complexion than the original six. The four pairs now seem to represent the leader's aversion or propensity toward gathering opinion from others. The original parameter was more broad but not substantially so. Where the four pairs measure independence in decision-making, the original six were intended to measure independence in general thought patterns.

There are three factors on which the modified parameter, independent decision-maker, loads significantly. Two of these factors are positive: Factors 2 and 6. The only negative loading, which indicates a propensity toward obtaining inputs from group members rather than independence in decision-making, is found in Factor 1.

Table 52. Factor Loadings  
Parameter = Independent Decision-Maker

| FACTOR1  | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6 |
|----------|---------|---------|---------|---------|---------|
| -0.34919 | 0.42960 | 0.19558 | 0.01428 | 0.20346 | 0.45112 |

*Intolerant of Differing Opinions.*

Table 53. Initial Cronbach's Alpha Statistics  
Parameter = Intolerant of Differing Opinions

| Alpha for Standardized Variables = 0.849675              |                        |                          |
|--|------------------------|--------------------------|
| Semantic Differential Scale                              | Correlation with total | $\alpha$ if item deleted |
| receptive - unreceptive                                  | 0.749736               | 0.802021                 |
| tolerant - intolerant                                    | 0.655472               | 0.820492                 |
| willing to listen - unwilling to listen                  | 0.576556               | 0.835411                 |
| encourages different ideas - discourages different ideas | 0.568724               | 0.836865                 |
| rejecting - accepting                                    | 0.527845               | 0.844377                 |
| prejudiced - open-minded                                 | 0.726889               | 0.806564                 |

The figures in Table 53 show that removing any of the semantic pairs reduces the overall reliability. So, the initial set of six pairs, the corresponding alpha, and the description, intolerant of differing opinions, for the parameter remain unchanged.

The factor loadings for this parameter are found in Table 54. This parameter loads significantly on only one factor. A highly significant but negative loading is associated with Factor 1. This should be interpreted to mean that a high degree of intolerance detracts from the overall score for Factor 1.

Table 54. Factor Loadings  
Parameter = Intolerant of Differing Opinions

| FACTOR1  | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6 |
|----------|---------|---------|---------|---------|---------|
| -0.86564 | 0.20262 | 0.14283 | 0.17889 | 0.05412 | 0.02596 |

*Morally Upright.*

Table 55. Initial Cronbach's Alpha Statistics  
Parameter = Morally Upright

| Alpha for Standardized Variables = 0.881331 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| ethical - unethical                         | 0.712956               | 0.856471                 |
| virtuous - unscrupulous                     | 0.745754               | 0.848704                 |
| principled - unprincipled                   | 0.778066               | 0.840941                 |
| righteous - unrighteous                     | 0.532116               | 0.897282                 |
| moral - immoral                             | 0.820716               | 0.830521                 |

Table 56. Final Cronbach's Alpha and Retained Pairs  
Parameter = Morally Upright

|   |
|---|
| Overall Alpha for Standardized Variables: 0.897282  |
| Scales Retained (4): ethical - unethical, virtuous - unscrupulous, principled - unprincipled, moral - immoral |

Clearly, the retained pairs still measure the perception of moral uprightness. This parameter has three positive loadings. Table 57 shows that morally upright has a highly significant loading on Factor 1 and less significant loadings on Factors 3 and 4.

Table 57. Factor Loadings  
Parameter = Morally Upright

| FACTOR1 | FACTOR2  | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6 |
|---------|----------|---------|---------|---------|---------|
| 0.75677 | -0.07876 | 0.26305 | 0.22195 | 0.16597 | 0.19141 |



*Perceptive.*

Table 58. Initial Cronbach's Alpha Statistics  
Parameter = Perceptive

| Alpha for Standardized Variables = 0.805388 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| watchful - inattentive                      | 0.417415               | 0.807049                 |
| observant - unobservant                     | 0.550809               | 0.777864                 |
| informed - uninformed                       | 0.549405               | 0.778180                 |
| discerning - oblivious                      | 0.553734               | 0.777204                 |
| clueless - perceptive                       | 0.716057               | 0.739221                 |
| aware - unaware                             | 0.599536               | 0.766760                 |

As seen in Table 58, removing the pair, watchful - inattentive, improves the reliability coefficient by 0.001661. However, I did not delete this pair when performing the factor analysis. So, the term, perceptive, still accurately portrays the concept measured by these scales.

This parameter loads significantly on three factors as shown in Table 59. All three loadings, in Factors 1, 2, and 4, are positive. The loading in Factor 1 is highly significant.

Table 59. Factor Loadings  
Parameter = Perceptive

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5 | FACTOR6  |
|---------|---------|----------|---------|---------|----------|
| 0.75857 | 0.31090 | -0.03699 | 0.24491 | 0.19284 | -0.15280 |

*Persuasive.*

Table 60. Initial Cronbach's Alpha Statistics  
Parameter = Persuasive

| Alpha for Standardized Variables = 0.786161       |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                       | Correlation with total | $\alpha$ if item deleted |
| persuasive - unpersuasive                         | 0.572771               | 0.742828                 |
| logical - illogical                               | 0.490999               | 0.769255                 |
| convincing - confusing                            | 0.621463               | 0.726554                 |
| compelling speaker - noncompelling speaker        | 0.526130               | 0.758039                 |
| effective communicator - ineffective communicator | 0.603815               | 0.732499                 |

Table 60 demonstrates that all five pairs used to test this parameter should be retained. Reliability for the measure would fall if any of the pairs were deleted. Consequently, the overall alpha for the parameter is as shown in Table 60 and all of the pairs were retained for the factor analysis. The scales still measure the follower's perception of the leader's persuasiveness.

Only Factors 1 and 2 show significant loadings for the parameter, persuasive. The loading on Factor 1 is highly significant.

Table 61. Factor Loadings  
Parameter = Persuasive

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5  | FACTOR6  |
|---------|---------|----------|---------|----------|----------|
| 0.73258 | 0.37317 | -0.13685 | 0.14865 | -0.05214 | -0.12647 |

*Provides a Challenging Environment.*

Table 62. Initial Cronbach's Alpha Statistics  
Parameter = Provides a Challenging Environment

| Alpha for Standardized Variables = 0.700264 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| inspiring - stifling                        | 0.518627               | 0.631776                 |
| challenging - unchallenging                 | 0.399421               | 0.670452                 |
| stimulating - suppressing                   | 0.526661               | 0.629084                 |
| provoking - restrictive                     | 0.125825               | 0.750690                 |
| rousing - restraining                       | 0.486573               | 0.642405                 |
| stirring - repressive                       | 0.553568               | 0.616580                 |

Table 63. Final Cronbach's Alpha and Retained Pairs  
Parameter = Provides a Challenging Environment

|   |
|---|
| Overall Alpha for Standardized Variables: 0.750690  |
| Scales Retained (5): inspiring - stifling, challenging - unchallenging, stimulating - suppressing, rousing - restraining, stirring - repressive |

The deletion of the pair, provoking - restrictive, may be explained by non-linearity in this pair. While provoking can be a positive term, some could have interpreted both halves of the pair as negative. The five retained pairs reflect the positive aspect of provoking, that is, encouraging others to reach for goals that will require real effort to attain.

Table 64 shows that for this parameter, there are two positive loadings in Factors 1 and 2 and one negative loading in Factor 4.

Table 64. Factor Loadings  
Parameter = Provides a Challenging Environment

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4  | FACTOR5  | FACTOR6  |
|---------|---------|----------|----------|----------|----------|
| 0.65172 | 0.49699 | -0.04263 | -0.23051 | -0.02788 | -0.16084 |

*Provides Relevance and Meaning.*

Table 65. Initial Cronbach's Alpha Statistics  
Parameter = Provides Relevance and Meaning

| Alpha for Standardized Variables = 0.838808 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| in touch - out of touch                     | 0.627790               | 0.809928                 |
| illuminates - clouds                        | 0.641314               | 0.807213                 |
| significant - trivial                       | 0.504629               | 0.833950                 |
| appropriate - inappropriate                 | 0.628742               | 0.809737                 |
| relevant - irrelevant                       | 0.660745               | 0.803285                 |
| provides meaning - meaningless              | 0.626703               | 0.810146                 |

Since deleting any of the semantic pairs would reduce the reliability coefficient of the overall measure, the initial set of six pairs, the corresponding alpha, and parametric description remain unchanged.

Significant positive loading occurs on Factors 1 and 2.

Table 66. Factor Loadings  
Parameter = Provides Relevance and Meaning

| FACTOR1 | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6  |
|---------|---------|---------|---------|---------|----------|
| 0.86743 | 0.22386 | 0.01250 | 0.12684 | 0.04896 | -0.07392 |

*Reckless.*

Table 67. Initial Cronbach's Alpha Statistics  
Parameter = Reckless

| Alpha for Standardized Variables = 0.746596 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| dangerous - safe                            | 0.537799               | 0.691851                 |
| risky - cautious                            | 0.345036               | 0.760467                 |
| reckless - circumspect                      | 0.604567               | 0.666359                 |
| careless - careful                          | 0.558997               | 0.683856                 |
| rash - prudent                              | 0.517295               | 0.699498                 |

Table 68. Final Cronbach's Alpha and Retained Pairs  
Parameter = Reckless

|   |
|---|
| Overall Alpha for Standardized Variables: 0.760467  |
| Scales Retained (4): dangerous - safe, reckless - circumspect, careless - careful, rash - prudent |

The four remaining pairs accurately convey the meaning for this parameter as titled. Factor loadings for the parameter, reckless, are found in Table 69. The only positive loading is found associated with Factor 2. The scale representing perceived recklessness should be reverse-scored to accommodate the negative loadings found in Factors 1 and 4.

Table 69. Factor Loadings  
Parameter = Reckless

| FACTOR1  | FACTOR2 | FACTOR3 | FACTOR4  | FACTOR5  | FACTOR6 |
|----------|---------|---------|----------|----------|---------|
| -0.57151 | 0.29078 | 0.06321 | -0.40921 | -0.00572 | 0.15799 |

*Relationship-Oriented.*

Table 70. Initial Cronbach's Alpha Statistics  
Parameter = Relationship-Oriented

| Alpha for Standardized Variables = 0.536904                            |                        |                          |
|--|------------------------|--------------------------|
| Semantic Differential Scale  | Correlation with total | $\alpha$ if item deleted |
| a family person - strictly business                                    | 0.306194               | 0.479701                 |
| encourages non-work relationships - discourages non-work relationships | 0.248990               | 0.527142                 |
| gregarious - indifferent   | 0.353808               | 0.43569                  |
| people-oriented - isolationist   | 0.389081               | 0.407112                 |

This is an extremely low reliability coefficient. Since deleting any of the semantic pairs would reduce the already marginal reliability of the overall measure, the initial set of four pairs, the calculated alpha, and the characterization of the parameter remain unchanged.

Table 71 contains the factor loadings for this parameter. Significant positive loadings are found in Factors 1 and 6. The only significant negative loading is associated with Factor 4.

Table 71. Factor Loadings  
Parameter = Relationship-Oriented

| FACTOR1 | FACTOR2  | FACTOR3 | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|----------|---------|----------|----------|---------|
| 0.60337 | -0.05720 | 0.00295 | -0.35461 | -0.09661 | 0.31677 |

*Self-Confident.*

Table 72. Initial Cronbach's Alpha Statistics  
Parameter = Self-Confident

| Alpha for Standardized Variables = 0.771822 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| poised - timid                              | 0.526649               | 0.735690                 |
| secure - insecure                           | 0.435243               | 0.766042                 |
| assured - shy                               | 0.536940               | 0.732180                 |
| certain - uncertain                         | 0.587308               | 0.714725                 |
| confident - hesitant                        | 0.634751               | 0.697859                 |

Since removing any pair would not improve the reliability, I used the five original scales for this parameter. The concept measured by these pairs still appears to be the leader's projection of self-confidence.

Table 73 shows that perceived self-confidence contributes positively to Factors 1, 2, and 4. There is a significant negative loading found on Factor 3.

Table 73. Factor Loadings  
Parameter = Self-Confidence

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5  | FACTOR6  |
|---------|---------|----------|---------|----------|----------|
| 0.65444 | 0.40069 | -0.23566 | 0.23415 | -0.01388 | -0.12630 |

*Sets an Example.*

Table 74. Initial Cronbach's Alpha Statistics  
Parameter = Sets an Example

| Alpha for Standardized Variables = 0.796483 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| exemplary - non-exemplary                   | 0.602995               | 0.748033                 |
| to be imitated - not to be imitated         | 0.441995               | 0.823734                 |
| the ideal - not ideal                       | 0.696751               | 0.700496                 |
| positive role-model - negative role-model   | 0.703989               | 0.696717                 |

I found that deleting the pair, exemplary - non-exemplary, would increase the reliability coefficient another 0.018927 above the 0.823734 level achieved when I removed to be imitated - not to be imitated. However, since this would leave only two semantic differentials with which to measure this parameter, I decided to accept the 0.823734 reliability.

Table 75. Final Cronbach's Alpha and Retained Pairs  
Parameter = Sets an Example

|  |
|--|
| Overall Alpha for Standardized Variables: 0.823734   |
| Scales Retained (3): exemplary - non-exemplary, the ideal - not ideal, positive role-model - negative role-model |

The concept, sets an example, is still adequately covered by the three remaining pairs. As can be seen in Table 76, this parameter loads significantly on only one factor. The loading on Factor 1 is highly significant.



Table 76. Factor Loadings  
Parameter = Sets an Example

| FACTOR1 | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5 | FACTOR6 |
|---------|---------|---------|---------|---------|---------|
| 0.84784 | 0.09999 | 0.14631 | 0.09959 | 0.06616 | 0.07983 |

*Similar to Group Members.*

Table 77. Initial Cronbach's Alpha Statistics  
Parameter = Similar to Group Members

| Alpha for Standardized Variables = 0.629590 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| like group members - unlike group members   | 0.446017               | 0.551937                 |
| same - different                            | 0.119338               | 0.673261                 |
| shares group goals - has dissimilar goals   | 0.462470               | 0.545226                 |
| member - non-member                         | 0.461449               | 0.545644                 |
| representative - non-representative         | 0.466283               | 0.543662                 |
| like me - unlike me                         | 0.237851               | 0.631797                 |

Removing the pair, same - different, increases the reliability as shown in Table 77. I found in the next iteration of the reliability calculations that by removing the pair, like me - unlike me, I could increase the measure's performance by 0.010976. Table 78 demonstrates this fact.

Table 78. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Similar to Group Members

| Alpha for Standardized Variables = 0.673261 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| like group members - unlike group members   | 0.405125               | 0.631828                 |
| shares group goals - has dissimilar goals   | 0.438156               | 0.617030                 |
| member - non-member                         | 0.538749               | 0.570161                 |
| representative - non-representative         | 0.478796               | 0.598425                 |
| like me - unlike me                         | 0.282622               | 0.684237                 |

Table 79. Final Cronbach's Alpha and Retained Pairs  
Parameter = Similar to Group Members

|   |
|---|
| Overall Alpha for Standardized Variables: 0.684237  |
| Scales Retained (4): like group members - unlike group members, shares group goals - has dissimilar goals, member - non-member, representative - non-representative |

The four retained pairs are adequate to cover the concept of group similarity. Loss of the pair, like me - unlike me, was somewhat disappointing but understandable. A follower may recognize the leader as an accepted group member. However, the same follower may be reluctant to say, "I am like that charismatic leader everyone respects, admires, and trusts."

A perceived similarity to group members detracts from the overall score for Factors 2 and 5. The same perception aids the score of Factor 1. The factor loadings supporting these statements are found in Table 80.

Table 80. Factor Loadings  
Parameter = Similar to Group Members

| FACTOR1 | FACTOR2  | FACTOR3 | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|----------|---------|----------|----------|---------|
| 0.51598 | -0.28899 | 0.06755 | -0.02006 | -0.51885 | 0.12081 |

*Successful.*

Table 81. Initial Cronbach's Alpha Statistics  
Parameter = Successful

| Alpha for Standardized Variables = 0.805204 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| triumph - defeat                            | 0.437540               | 0.812998                 |
| wins - loses                                | 0.518486               | 0.789361                 |
| achieves - flounders                        | 0.648397               | 0.749337                 |
| succeeds - fails                            | 0.764836               | 0.711200                 |
| accomplishes - fails                        | 0.596487               | 0.765644                 |

After removing the pair, triumph - defeat, and recalculating the reliability coefficient, I was able to improve the reliability further. A reliability coefficient of 0.826147 is attainable by removing the pair, wins - loses. Table 82 contains the appropriate data summary.

Table 32. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Successful

| Alpha for Standardized Variables = 0.812998 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| wins - loses                                | 0.497602               | 0.826147                 |
| achieves - flounders                        | 0.653929               | 0.754533                 |
| succeeds - fails                            | 0.769380               | 0.697340                 |
| accomplishes - fails                        | 0.617743               | 0.771696                 |

Table 33. Final Cronbach's Alpha and Retained Pairs  
Parameter = Successful

|   |
|---|
| Overall Alpha for Standardized Variables: 0.826147                                |
| Scales Retained (3): achieves - flounders, succeeds - fails, accomplishes - fails |

The theoretical parameter, successful, is accurately covered by the remaining word pairs. Using the three scales shown in Table 33 to measure the parameter, the factor loadings found in Table 34 were obtained. Two loadings are significant, both positive. The first, associated with Factor 1, is highly significant, while the other, associated with Factor 2, is less so.

Table 34. Factor Loadings  
Parameter = Successful

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5  | FACTOR6  |
|---------|---------|----------|---------|----------|----------|
| 0.70024 | 0.34973 | -0.15109 | 0.13553 | -0.07219 | -0.11831 |

*Team-Builder.*

Table 85. Initial Cronbach's Alpha Statistics  
Parameter = Team-Builder

| Alpha for Standardized Variables = 0.841692 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| promotes unity - divisive                   | 0.611661               | 0.818933                 |
| team-builder - factionist                   | 0.758722               | 0.778031                 |
| reconciler - trouble-maker                  | 0.544297               | 0.836730                 |
| encourages alliances - separates            | 0.558739               | 0.832963                 |
| builds bridges - sows discord               | 0.769590               | 0.774895                 |

As seen in Table 85, removing any of the semantic pairs would reduce the reliability of the measure for this parameter. So, the initial set of five pairs, the corresponding alpha, and the phrase, team-builder, remain unchanged.

Table 86 contains the factor loadings for the parameter, team-builder. There is a highly significant positive loading on Factor 1. Factor 2 has a significant negative loading, indicating the need to reverse-score these scales for measuring Factor 2.

Table 86. Factor Loadings  
Parameter = Team-Builder

| FACTOR1 | FACTOR2  | FACTOR3  | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|----------|----------|----------|----------|---------|
| 0.80725 | -0.21340 | -0.04878 | -0.01017 | -0.06775 | 0.19782 |

*Technically Proficient.*

Table 87. Initial Cronbach's Alpha Statistics  
Parameter = Technically Proficient

| Alpha for Standardized Variables = 0.847267 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| proficient - inept                          | 0.622558               | 0.824760                 |
| skilled - amateur                           | 0.688923               | 0.806998                 |
| qualified - unqualified                     | 0.615861               | 0.826521                 |
| expert - novice                             | 0.704423               | 0.802769                 |
| knowledgeable - untaught                    | 0.645767               | 0.818611                 |

As in the previous parameter, all of the original pairs were retained and so there is no change in the reliability coefficient or descriptive phrase.

Significant loadings appear in Table 88 on Factors 1, 2, and 6. The first is a highly significant positive loading on Factor 1; the second is also positive and found on Factor 2. The loading for Factor 6 is negative.

Table 88. Factor Loadings  
Parameter = Technically Proficient

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5 | FACTOR6  |
|---------|---------|----------|---------|---------|----------|
| 0.70081 | 0.29212 | -0.07936 | 0.16040 | 0.05607 | -0.37116 |

*Tenacious.*

Table 89. Initial Cronbach's Alpha Statistics  
Parameter = Tenacious

| Alpha for Standardized Variables = 0.682016 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| tenacious - yielding                        | 0.471598               | 0.615759                 |
| persistent - impersistent                   | 0.304579               | 0.687163                 |
| stubborn - easily swayed                    | 0.551207               | 0.579200                 |
| obstinate - flexible                        | 0.352632               | 0.667337                 |
| bulldoggish - fluctuating                   | 0.512453               | 0.597206                 |

Table 90. Final Cronbach's Alpha and Retained Pairs  
Parameter = Tenacious

|  |
|--|
| Overall Alpha for Standardized Variables: 0.687163   |
| Scales Retained (4): tenacious - yielding, stubborn - easily swayed, obstinate - flexible, bulldoggish - fluctuating |

The concept, tenacity, can still be seen in the remaining word pairs. In Table 91 there are three significant loadings for this parameter. The perception of tenacity has a significant positive effect on Factors 2 and 4. This especially pronounced in Factor 2. A significant negative loading is associated with Factor 1.

Table 91. Factor Loadings  
Parameter = Tenacious

| FACTOR1  | FACTOR2 | FACTOR3 | FACTOR4 | FACTOR5  | FACTOR6 |
|----------|---------|---------|---------|----------|---------|
| -0.46524 | 0.62679 | 0.15250 | 0.26483 | -0.01866 | 0.12903 |

Trusted.

Table 92. Initial Cronbach's Alpha Statistics  
Parameter = Trusted

| Alpha for Standardized Variables = 0.898626 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| believed - suspected                        | 0.752083               | 0.875642                 |
| depended on - not depended on               | 0.625063               | 0.902789                 |
| trusted - mistrusted                        | 0.836255               | 0.856804                 |
| relied on - doubted                         | 0.759293               | 0.874055                 |
| counted on - questioned                     | 0.776421               | 0.870266                 |

Table 93. Final Cronbach's Alpha and Retained Pairs  
Parameter = Trusted

|   |
|---|
| Overall Alpha for Standardized Variables: 0.902789  |
| Scales Retained (4): believed - suspected, trusted - mistrusted, relied on - doubted, counted on - questioned |

The unchanged parameter, trusted, loads significantly only on Factor 1. The loading on Factor 1 is positive and highly significant as shown in Table 94.

Table 94. Factor Loadings  
Parameter = Trusted

| FACTOR1 | FACTOR2  | FACTOR3 | FACTOR4 | FACTOR5  | FACTOR6 |
|---------|----------|---------|---------|----------|---------|
| 0.86025 | -0.04267 | 0.16245 | 0.19651 | -0.01100 | 0.18154 |



*Unaffected by Crises.*

Table 95. Initial Cronbach's Alpha Statistics  
Parameter = Unaffected by Crises

| Alpha for Standardized Variables = 0.756002 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| poised - agitated                           | 0.521117               | 0.713876                 |
| collected - befuddled                       | 0.497036               | 0.720399                 |
| cool - flustered                            | 0.632012               | 0.68257                  |
| unflappable - distracted                    | 0.509426               | 0.717052                 |
| composed - easily ruffled                   | 0.713237               | 0.659098                 |
| self-possessed - unsettled                  | 0.151185               | 0.806159                 |

I discovered that after removing the pair, self-possessed - unsettled another improvement could be made. If collected - befuddled were removed, the reliability coefficient would increase by 0.001271. I did not remove the second pair or include this improvement.

Table 96. Final Cronbach's Alpha and Retained Pairs  
Parameter = Unaffected by Crises

|  |
|--|
| Overall Alpha for Standardized Variables: 0.806159   |
| Scales Retained (5): poised - agitated, collected - befuddled, cool - flustered, unflappable - distracted, composed - easily ruffled |

The five pairs in Table 96 accurately convey the meaning of the original parameter. Table 97 contains the factor loadings for this parameter. Factors 1 and 3 show significant loadings although widely different in magnitude and of opposite signs.

Table 97. Factor Loadings  
Parameter = Unaffected by Crises

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4 | FACTOR5 | FACTOR6  |
|---------|---------|----------|---------|---------|----------|
| 0.77950 | 0.02080 | -0.21099 | 0.09130 | 0.16170 | -0.10985 |

*Unconventional.*

Table 98. Initial Cronbach's Alpha Statistics  
Parameter = Unconventional

| Alpha for Standardized Variables = 0.758459 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| unconventional - ordinary                   | 0.598113               | 0.696294                 |
| creative - unimaginative                    | 0.496107               | 0.724162                 |
| radical - typical                           | 0.587075               | 0.699375                 |
| innovative - routine                        | 0.479098               | 0.728680                 |
| original - common                           | 0.474094               | 0.730002                 |
| unorthodox - traditional                    | 0.366640               | 0.757640                 |

All six of the pairs were retained for factor analysis. Consequently, the reliability of 0.758459 remains the same and of course, the descriptive phrase, unconventional, does also.

Table 99 shows the factor loadings for this parameter. Significance is attained in Factors 2 and 4, but in opposite directions.

Table 99. Factor Loadings  
Parameter = Unconventional

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4  | FACTOR5 | FACTOR6 |
|---------|---------|----------|----------|---------|---------|
| 0.18646 | 0.68832 | -0.08396 | -0.50392 | 0.10245 | 0.00327 |

*Uses Rewards More Than Punishments.*

Table 100. Initial Cronbach's Alpha Statistics  
Parameter = Uses Rewards More Than Punishments

| Alpha for Standardized Variables = 0.913627 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| praises - upbraids                          | 0.821800               | 0.888829                 |
| commends - chides                           | 0.727637               | 0.902248                 |
| rewarder - punisher                         | 0.717327               | 0.903689                 |
| notices good work - notices poor work       | 0.614359               | 0.917777                 |
| applauds - rebukes                          | 0.846344               | 0.885254                 |
| congratulates - criticizes                  | 0.828129               | 0.888637                 |

Table 101. Final Cronbach's Alpha and Retained Pairs  
Parameter = Uses Rewards More Than Punishments

|   |
|---|
| Overall Alpha for Standardized Variables: 0.917777  |
| Scales Retained (5): praises - upbraids, commends - chides, rewarder - punisher, applauds - rebukes, congratulates - criticizes |

Uses rewards more than punishments is still an accurate description of the concept measured by the pairs in Table 101. I found the factor loadings contained in Table 102 after the factor analysis step. A highly significant positive loading occurs on Factor 1. Factors 2 and 3 both show significant negative loadings. The scales measuring this parameter should be reverse-scored to reflect the negative value of these loadings.

Table 102. Factor Loadings  
Parameter = Uses Rewards More Than Punishments

| FACTOR1 | FACTOR2  | FACTOR3  | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|----------|----------|----------|----------|---------|
| 0.76162 | -0.23827 | -0.26042 | -0.00342 | -0.14941 | 0.10706 |

*Visionary.*

Table 103. Initial Cronbach's Alpha Statistics  
Parameter = Visionary

| Alpha for Standardized Variables = 0.567828 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| lofty - mundane                             | 0.184538               | 0.575480                 |
| idealistic - pragmatic                      | 0.310282               | 0.520914                 |
| visionary - practical                       | 0.504697               | 0.428234                 |
| future-oriented - present-oriented          | 0.450724               | 0.455012                 |
| dreamer - realist                           | 0.215801               | 0.562293                 |
| strategic - tactical                        | 0.202470               | 0.567946                 |

Table 104. Final Cronbach's Alpha and Retained Pairs  
Parameter = Visionary

|   |
|---|
| Overall Alpha for Standardized Variables: 0.575480  |
| Scales Retained (5): idealistic - pragmatic, visionary - practical, future-oriented - present-oriented, dreamer - realist, strategic - tactical |

Unfortunately, the reliability associated with the five pairs in Table 104 is very low. The pairs appear to accurately characterize the theoretical parameter, visionary.

Table 105 contains the factor loadings for the parameter, visionary. Four loadings are significant. Loadings on Factors 2 and

5 are significant in a positive direction. The scales should be reverse-scored to accurately reflect the loadings on Factors 3 and 4.

Table 105. Factor Loadings  
Parameter = Visionary

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4  | FACTOR5 | FACTOR6 |
|---------|---------|----------|----------|---------|---------|
| 0.13916 | 0.35586 | -0.24499 | -0.42808 | 0.46630 | 0.02906 |

*Willing to Risk Self.*

Table 106. Initial Cronbach's Alpha Statistics  
Parameter = Willing to Risk Self

| Alpha for Standardized Variables = 0.621452 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| seeks group interests - seeks own interests | 0.347468               | 0.581395                 |
| daring - guarded                            | 0.312906               | 0.598473                 |
| adventurous - unadventurous                 | 0.251429               | 0.627945                 |
| cause-oriented - career-oriented            | 0.451750               | 0.527581                 |
| self-sacrificing - self-preserving          | 0.526526               | 0.486819                 |

After removing the pair, adventurous - unadventurous, I calculated the reliability coefficient table again. Table 107 contains the results. The figures show that another significant improvement can be made by removing the pair, daring - guarded.

Table 107. Second Iteration of Cronbach's Alpha Statistics  
Parameter = Willing to Risk Self

| Alpha for Standardized Variables = 0.627945 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| seeks group interests - seeks own interests | 0.432911               | 0.539793                 |
| daring - guarded                            | 0.189047               | 0.705121                 |
| cause-oriented - career-oriented            | 0.506349               | 0.484081                 |
| self-sacrificing - self-preserving          | 0.531671               | 0.464203                 |

Table 108. Final Cronbach's Alpha and Retained Pairs  
Parameter = Willing to Risk Self

|  |
|--|
| Overall Alpha for Standardized Variables: 0.705121   |
| Scales Retained (3): seeks group interests - seeks own interests, cause-oriented - career-oriented, self-sacrificing - self-preserving |

The three retained pairs seem to accurately portray the parameter, willing to risk self. Table 109 shows that there are three significant loadings for this parameter. A perceived willingness to risk self loads positively on Factors 1 and 3; this same traits loads negatively on Factor 4.

Table 109. Factor Loadings  
Parameter = Willing to Risk Self

| FACTOR1 | FACTOR2 | FACTOR3 | FACTOR4  | FACTOR5 | FACTOR6  |
|---------|---------|---------|----------|---------|----------|
| 0.53421 | 0.04338 | 0.60762 | -0.22362 | 0.14899 | -0.06382 |

*Evaluative.*

Table 110. Initial Cronbach's Alpha Statistics  
Parameter = Evaluative

| Alpha for Standardized Variables = 0.781126 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| valuable - worthless                        | 0.487330               | 0.777247                 |
| good - bad                                  | 0.596786               | 0.722387                 |
| nice - awful                                | 0.684700               | 0.675634                 |
| sweet - bitter                              | 0.581928               | 0.730049                 |

I retained all four pairs for use in factor analysis. The reliability coefficient of 0.781126 remains unchanged. The results of the factor analysis, found in Table 111, disclose only one significant loading: a positive one on Factor 1.

Table 111. Factor Loadings  
Parameter = Evaluative

| FACTOR1 | FACTOR2  | FACTOR3  | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|----------|----------|----------|----------|---------|
| 0.83641 | -0.12255 | -0.05869 | -0.01648 | -0.01891 | 0.15721 |

*Activity.*

Table 112. Initial Cronbach's Alpha Statistics  
Parameter = Activity

| Alpha For Standardized Variables = 0.578872 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| energetic - inert                           | 0.438031               | 0.443844                 |
| fast - slow                                 | 0.509414               | 0.381998                 |
| active - passive                            | 0.491438               | 0.397374                 |
| excitable - calm                            | 0.062392               | 0.720014                 |

Table 113. Final Cronbach's Alpha and Retained Pairs  
Parameter = Activity

|   |
|---|
| Overall Alpha for Standardized Variables: 0.720014                    |
| Scales Retained (3): energetic - inert, fast - slow, active - passive |

This parameter loads significantly on three factors found in Table 114. The two positive loadings occur on Factors 1 and 2. The negative loading is found on Factor 5.

Table 114. Factor Loadings  
Parameter = Activity

| FACTOR1 | FACTOR2 | FACTOR3  | FACTOR4  | FACTOR5  | FACTOR6 |
|---------|---------|----------|----------|----------|---------|
| 0.48123 | 0.57055 | -0.16565 | -0.01994 | -0.22530 | 0.12473 |



*Potency.*

Table 115. Initial Cronbach's Alpha Statistics  
Parameter = Potency

| Alpha for Standardized Variables = 0.274113 |                        |                          |
|---|------------------------|--------------------------|
| Semantic Differential Scale                 | Correlation with total | $\alpha$ if item deleted |
| heavy - light                               | 0.098741               | 0.269643                 |
| hard - soft                                 | 0.080963               | 0.291208                 |
| strong - weak                               | 0.257816               | 0.059450                 |
| sharp - dull                                | 0.124137               | 0.238186                 |

As the figures in Table 115 show, I chose inappropriate representatives from those available to test potency. Without any confidence in the reliability of this measure, I did not use it in the factor analysis.

*Composition of the Six Factors Extracted From the Data by Factor Analysis*

This section summarizes the loadings for each of the six factors that achieved an eigenvalue of 1.0 or greater. I present the significant loadings in three groupings: first, the positive, then the negative, and finally those parameters that are unique and provide differentiating power. At the end of the discussion for each parameter is a summary of the factor's character. Each of the summaries is an attempt to establish meaningfulness for the wealth of numbers found in the tables. This is the key final step described by Kim and Mueller (1978:56).

*Factor 1.* Of the 39 factors used for initialization of the confirmatory factor analysis, 34 show significant loadings. Only nine

are negative while 25 are positive. 15 loadings are unique to Factor 1, allowing Factor 1 to be distinguished from the other factors. For example, the parameter, sets an example, loads on Factor 1 at 0.84784. This parameter loads significantly on no other factor. This is a unique loading. Another unique loading occurs on Factor 1 for the parameter, distant. The loading is -0.66538. Two other significant loadings appear (under factors 4 and 5) but since these are both positive loadings, the negative loading on Factor 1 is unique or differentiating. One final example clarifies this element of uniqueness. While catalyst for change loads significantly and positively on Factor 1, that parameter also loads significantly and positively on Factor 2. Since this parameter cannot be used to distinguish between the two factors, this loading is not unique.

*Significant Positive Loadings on Factor 1.* Table 116 contains a list of all the parameters with significant positive loadings on Factor 1. The order is by convenience.

Table 116. Significant Positive Loadings  
Factor 1

|  |                                    |                       |
|--|------------------------------------|-----------------------|
| Effective (0.75354)                          | Empowering (0.86378)               | Trustworthy (0.83150) |
| Perceptive (0.75857)                         | Persuasive (0.73258)               | Successful (0.70024)  |
| Evaluative (0.83641)                         | Activity (0.48123)                 | Trusted (0.86025)     |
| Highly Devoted (0.63547)                     | Highly Respected (0.88549)         |                       |
| Sets an Example (0.84784)                    | Team-Builder (0.86025)             |                       |
| Technically Proficient (0.70081)             | Morally Upright (0.75677)          |                       |
| Catalyst for Change (0.35553)                | Concerned for Others (0.87623)     |                       |
| Relationship-Oriented (0.60337)              | Self-Confident (0.65444)           |                       |
| Unaffected by Crises (0.77950)               | Similar to Group Members (0.51598) |                       |
| Willing to Risk Self (0.53421)               |                                    |                       |
| Provides a Challenging Environment (0.65172) |                                    |                       |
| Provides Relevance and Meaning (0.86743)     |                                    |                       |
| Uses Rewards More Than Punishments (0.76162) |                                    |                       |

*Significant Negative Loadings on Factor 1. Table 117*

contains a list of all the parameters with significant negative loadings on Factor 1. The order is by convenience.

Table 117. Significant Negative Loadings  
Factor 1

|  |                     |                            |
|--|---------------------|----------------------------|
| Arrogant (-0.68192)                            | Distant (-0.66538)  | Image-Conscious (-0.42386) |
| Tenacious (-0.46524)                           | Reckless (-0.57151) | Independent (-0.34919)     |
| Intolerant of Differing Opinions (-0.86564)    |                     |                            |
| Generates a Competitive Environment (-0.57738) |                     |                            |
| Exhibits a Strong Need for Power (-0.45535)    |                     |                            |

*Unique and Differentiating Loadings on Factor 1.* There are 15 of the 39 parameters that load uniquely on Factor 1, allowing Factor 1 to be measured separately from the other factors. The differentiating parameters are found in Table 118.

Table 118. Differentiating Parameters  
Factor 1

| Parameters Loading Positively                | Parameters Loading Negatively                  |
|--|--|
| Concerned for Others (0.87623)               | Distant (-0.66538)                             |
| Empowering (0.86378)                         | Generates a Competitive Environment (-0.57738) |
| Highly Respected (0.88549)                   | Tenacious (-0.46524)                           |
| Sets an Example (0.84784)                    | Intolerant of Differing Opinions (-0.86564)    |
| Similar to Group Mbrs (0.51598)              | Independent (-0.34919)                         |
| Team-Builder (0.80725)                       |  |
| Trusted (0.86025)                            |  |
| Unaffected by Crises (0.77950)               |  |
| Uses Rewards More Than Punishments (0.76162) |  |
| Evaluative (0.83641)                         |  |

Factor 1 seems to be a function of the interpersonal skills of the charismatic leader. The strongest loadings appear to indicate a relationship based on trust and respect, founded on the leader's concern for and tolerance of others.

When taking an objective look at the entire list of significant parameters tied to this factor, I have to admit that this factor has strong evaluative properties. This comes as no surprise. For followers to associate a charismatic leader with good versus bad passes the test of common sense. However, just as strongly as the entire list of significant parameters indicates an evaluative factor, the list of differentiating parameters indicates the strength of the bond between the charismatic leader and the people around him.

*Factor 2.* Of the 39 factors used for initialization of the confirmatory factor analysis, 25 show significant loadings on Factor 2. Of these 25, all but three are positive. Only 6 loadings are unique to Factor 2, those 6 allowing Factor 2 to be distinguished from the other factors. With Factor 2 and each subsequent factor another distinguishing criterion is introduced. A parameter may be significant in both Factors 1 and 2. However, if the magnitude of the loading on Factor 2 is greater than that on Factor 1, the parameter appears to have differentiating power since the general trend for all parameters is to decrease in magnitude from Factor 1 through Factor 6. Likewise if Factors 1, 2, and 5 all share a significant loading on a particular parameter, yet the loading on Factor 5 is the greatest, the parameter will be considered a distinguishing measure for Factor 5. Two parameters pass this test for differentiating power.

*Significant Positive Loadings on Factor 2. Table 119*

contains a list of all the parameters with significant positive loadings on Factor 2. The order is by convenience.

Table 119. Significant Positive Loadings  
Factor 2

|                               |   |                       |
|-------------------------------|---|-----------------------|
| Effective (0.29257)           | Perceptive (0.30.90)                          | Persuasive (0.37317)  |
| Successful (0.34978)          | Activity (0.57055)                            | Arrogant (0.38876)    |
| Assertive (0.80302)           | Forthright (0.38075)                          | Independent (0.42960) |
| Reckless (0.29078)            | Tenacious (0.62679)                           | Visionary (0.35586)   |
|                               | Unconventional (0.68832)                      |                       |
| Highly Devoted (0.39406)      | Technically Proficient (0.29212)              |                       |
| Catalyst for Change (0.43044) | Self-Confident (0.40069)                      |                       |
|                               | Generates a Competitive Environment (0.55931) |                       |
|                               | Exhibits a Strong Need for Power (0.66685)    |                       |
|                               | Exhibits a Strong Need to Influence (0.71226) |                       |
|                               | Provides a Challenging Environment (0.49699)  |                       |
|                               | Provides Relevance and Meaning (0.22386)      |                       |

*Significant Negative Loadings on Factor 2. Table 120*

contains a list of all the parameters with significant negative loadings on Factor 2. The order is by convenience.

Table 120. Significant Negative Loadings  
Factor 2

|   |                         |
|---|-------------------------|
| Similar to Group Members (-0.28899)           | Team-BUILDER (-0.21340) |
| Uses Rewards More Than Punishments (-0.23827) |                         |

*Unique and Differentiating Loadings on Factor 2. Six of*

the 39 original parameters load uniquely on Factor 2. These allow Factor 2 to be measured separately from the other factors. Two others add differentiating power based on the magnitude of their loading. The differentiating parameters are found in Table 121.

Table 121. Differentiating Parameters  
Factor 2

| Parameters Loading Positively                 | Parameters Loading Negatively |
|---|-------------------------------|
| Arrogant (0.38876)                            | Team-Builder (-0.21340)       |
| Assertive (0.81302)                           |                               |
| Exhibits a Strong Need for Power<br>(0.66685) |                               |
| Catalyst for Change (0.49044)                 |                               |
| Activity (0.57055)                            |                               |
| Reckless (0.29078)                            |                               |
| Unconventional (0.68832)                      |                               |

I find in the list of differentiating parameters a strong basis for characterizing this factor with the phrase, a forceful person of action and power. All of the parameters that differentiate this factor from the others indicate a person who stands out from the group.

Again, this factor is reminiscent of a factor found by Osgood, Suci, and Tannenbaum (1957). Many of the significant parameters on the complete lists imply activity. But, the differentiating factors narrow the focus considerably. The remaining parameters indicate personal qualities of action, change, and initiative.

*Factor 3.* Of the 39 factors used for initialization of the confirmatory factor analysis, 12 show significant loadings on Factor 3. Of these 12, five are positive and seven are negative. Two loadings were unique to Factor 3; four others provide differentiating power based on magnitude. So, six parameters allow Factor 3 to be distinguished from the other factors.

*Significant Positive Loadings on Factor 3.* Table 122 contains a list of all the parameters with significant positive loadings on Factor 3. The order is by convenience.

Table 122. Significant Positive Loadings  
Factor 3

|   |                                |
|---|--------------------------------|
| Forthright (0.68621)                          | Trustworthy (0.28968)          |
| Morally Upright (0.26305)                     | Willing to Risk Self (0.60762) |
| Generates a Competitive Environment (0.29177) |                                |

*Significant Negative Loadings on Factor 3.* Table 123 contains a list of all the parameters with significant negative loadings on Factor 3. The order is by convenience.

Table 123. Significant Negative Loadings  
Factor 3

|   |                                |
|---|--------------------------------|
| Image Conscious (-0.68552)                    | Self-Confident (-0.2356)       |
| Arrogant (-0.24378)                           | Catalyst for Change (-0.23099) |
| Unaffected by Crises (-0.21099)               | Visionary (-0.24499)           |
| Uses Rewards More Than Punishments (-0.26042) |                                |

*Unique and Differentiating Loadings on Factor 3.* There are two of the 39 parameters that load uniquely on Factor 3, allowing Factor 3 to be measured separately from the other factors. Four others add differentiating power based on the magnitude of their loading. The differentiating parameters are found in Table 124. Clearly, the summary of Factor 3 found in Table 124 demonstrates the charismatic leader's lack of involvement in political gaming. The three very strong descriptions, forthright, willing to risk self, and

Table 124. Differentiating Parameters  
Factor 3

| Parameters Loading Positively  | Parameters Loading Negatively                 |
|--------------------------------|---|
| Forthright (0.69621)           | Image Conscious (-0.68552)                    |
| Willing To Risk Self (0.60762) | Self-Confident (-0.23566)                     |
|                                | Unaffected by Crises (-0.21099)               |
|                                | Uses Rewards More Than Punishments (-0.26042) |

not image conscious, indicate a person who is willing to say and do what is required (from his or her own point of view). The phrase, "let the chips fall where they may," seems to fit very well.

*Factor 4.* Of the 39 factors used for initialization of the confirmatory factor analysis, 15 show significant loadings on Factor 4. Of these 15, eight are positive and seven are negative. Five loadings are unique to Factor 4; two others provide differentiating power based on magnitude. So, seven parameters allow Factor 4 to be distinguished from the other factors.

*Significant Positive Loadings on Factor 4.* Table 125 contains a list of all the parameters with significant positive loadings on Factor 4. The order is by convenience.

Table 125. Significant Positive Loadings  
Factor 4

|   |                           |                      |
|---|---------------------------|----------------------|
| Distant (0.24000)                             | Trustworthy (0.21881)     | Perceptive (0.24431) |
| Tenacious (0.26483)                           | Morally Upright (0.22195) |                      |
| Self-Confident (0.23415)                      | Image Conscious (0.25312) |                      |
| Exhibits a Strong Need to Influence (0.22307) |                           |                      |



*Significant Negative Loadings on Factor 4. Table 126*

contains a list of all the parameters with significant negative loadings on Factor 4. The order is by convenience.

Table 126. Significant Negative Loadings  
Factor 4

|   |                                  |
|---|----------------------------------|
| Reckless (-0.40921)                           | Unconventional (-0.50392)        |
| Visionary (-0.42808)                          | Willing to Risk Self (-0.22362)  |
| Catalyst for Change (-0.62159)                | Relationship-Oriented (-0.35461) |
| Provides a Challenging Environment (-0.23051) |                                  |

*Unique and Differentiating Loadings on Factor 4.* There are five of the 39 parameters that load uniquely on Factor 4, allowing Factor 4 to be measured separately from the other factors. Two others add differentiating power based on the magnitude of their loading. The differentiating parameters are found in Table 127.

Table 127. Differentiating Parameters  
Factor 4

| Parameters Loading Positively | Parameters Loading Negatively                 |
|-------------------------------|---|
| Image Conscious (0.25312)     | Catalyst for Change (-0.62159)                |
|                               | Provides a Challenging Environment (-0.23051) |
|                               | Relationship-Oriented (-0.35461)              |
|                               | Unconventional (-0.50392)                     |
|                               | Visionary (-0.42808)                          |
|                               | Willing to Risk Self (-0.22362)               |

While the numbers associated with Factor 4 may at first provide some surprise, I believe there is a meaningful concept contained in the data. The list of differentiating factors indicates that the

charismatic leader is very committed to the organization and its success. The charismatic recognizes that she has to operate within the bounds of the organizational constraints if she is to succeed. She demonstrates a commitment to the organization through dedicated work habits. She will maintain her own acceptance within the existing power structure anticipating this will aid her ability to eventually bring about change.

Her followers apparently recognize this attitude as protective of the organization's existence. This appeals to a need for security and stability on the part of the followers since they are members of the organization. Protection of the organization constitutes protection of its members (the followers).

*Factor 5.* Of the 39 factors used for initialization of the confirmatory factor analysis, six show significant loadings on Factor 5. Of these six, two are positive and four are negative. Two loadings are unique to Factor 5; three others provide differentiating power based on magnitude. So, five parameters allow Factor 5 to be distinguished from the other factors.

*Significant Positive Loadings on Factor 5.* Table 128 contains a list of all the parameters with significant positive loadings on Factor 5. The order is by convenience.

Table 128. Significant Positive Loadings  
Factor 5

|                   |                     |
|-------------------|---------------------|
| Distant (0.47964) | Visionary (0.46630) |
|-------------------|---------------------|

*Significant Negative Loadings on Factor 5.* Table 129 contains a list of all the parameters with significant negative loadings on Factor 5. The order is by convenience.

Table 129. Significant Negative Loadings  
Factor 5

|                      |   |
|----------------------|---|
| Assertive (-0.30007) | Exhibits a Strong Need for Power (-0.23045) |
| Activity (-0.22530)  | Similar to Group Members (-0.51885)         |

*Unique and Differentiating Loadings on Factor 5.* There are two of the 39 parameters that load uniquely on Factor 5, allowing Factor 5 to be measured separately from the other factors. Three others add differentiating power based on the magnitude of their loading. The differentiating parameters are found in Table 130.

Table 130. Differentiating Parameters  
Factor 5

| Parameters Loading Positively | Parameters Loading Negatively    |
|-------------------------------|----------------------------------|
| Distant (0.47964)             | Assertive (-0.30007)             |
| Visionary (0.46630)           | Similar to Group Mbrs (-0.51885) |
|                               | Activity (-0.22530)              |

Factor 5 indicates that the followers of a charismatic leader see the leader as different from themselves in the way the leader looks at the world. Interestingly, the attribution of charisma seems to occur without a need for the leader to actively attempt to propagate his or her different world view.

*Factor 6.* Of the 39 factors used for initialization of the confirmatory factor analysis, only four show significant loadings on Factor 6. Of these four, three are positive and one is negative. One

loading is unique to Factor 6; likewise, one other provides differentiating power based on magnitude. So, two parameters allow Factor 6 to be distinguished from the other factors.

*Significant Positive Loadings on Factor 6.* Table 131 contains a list of the three parameters with significant positive loadings on Factor 6. The order is by convenience.

Table 131. Significant Positive Loadings  
Factor 6

|   |                                 |
|---|---------------------------------|
| Independent (0.45112)                         | Relationship-Oriented (0.31677) |
| Exhibits a Strong Need to Influence (0.22767) |                                 |

*Significant Negative Loadings on Factor 6.* The only parameter with a significant negative loadings on Factor 6 is technically proficient. The loading for this parameter is -0.37116.

*Unique and Differentiating Loadings on Factor 6.* One parameter loads uniquely on Factor 6 and one parameter adds differentiating power based on the magnitude of its loading. The differentiating parameters are found in Table 132.

Table 132. Differentiating Parameters  
Factor 6

| Parameters Loading Positively | Parameters Loading Negatively    |
|-------------------------------|----------------------------------|
| Independence (0.45112)        | Technical Proficiency (-0.37116) |

Factor 6 appears to be the complement of Factor 5. The same individualism is apparent. The negative loading on technical proficiency seems to confirm that the leader's discrepant viewpoints go beyond the work place. This is a broader concept of a world-life view

that is uncommon. However, here there seems to be relationship-building for the purpose of influencing the world-life views of those around the leader.

So, by using factor analysis, I found six factors emerged from the data. However, the clean, objective set of factors I expected did not materialize using factor analysis. Several factors were too complex and contained too many of the original parameters. I found it hard to define the parameters unequivocally. Even with quantitative standards, the analysis proved highly qualitative.

*Composition of the Factors Extracted From the Data Using Pearson Product Moment Coefficient of Correlation*

Originally, I intended to use correlations to confirm the identity of the factors obtained with the rotated principal factors method. However, the goal changed after the highly complex factors emerged. I saw correlation as a tool to work in conjunction with the factor analysis to identify more specific and cohesive factors.

The first step in this portion of the analysis was to produce a 40-by-40 matrix of correlations. The thirty-seven theorized parameters plus the three anchoring factors were included. It became immediately clear that the evaluative factor was extremely important in this set of data. This confirmed the list of loadings on Factor 1 derived by factor analysis. Of the 37 theorized parameters, 29 were significantly correlated with the evaluative factor at the 0.0001 level. Five more were significant at the 0.01 level. Because of this finding, the evaluative factor became the anchor for the subjective analysis that follows.

The goal was first to find the parameters that had extremely high positive or negative correlations. In general, each of these parameters became the flagship for a family of parameters. The families were built on the basis of each member having a significant, positive correlation ( $p < 0.001$ ) with the lead parameter, while being less correlated with other lead parameters, and then on the basis of semantic sense. The task was to group parameters together based on correlations, collapsing the original 37 parameters into a smaller number of groups held together by substantive, subjective reasoning and empirical, objective correlations. The correlations seem to indicate 11 individual groupings.

The parameter most positively correlated with the evaluative scale was highly respected. The correlation was 0.744. The parameter most positively correlated (0.838) with this lead parameter was trusted. I then began to search for parameters both related ideologically to respect and trust and significantly, positively correlated with highly respected. Sets an example (0.757), exceptionally trustworthy (0.749), and morally upright (0.655) all passed the two-tiered test. And so the first factor I found with this method is one of respect, trust and credibility. This supports the finding reported earlier using factor analysis. The most potent factor in measuring charisma appears to be the trusting relationship established between leader and follower. One key to the strength of the relationship is the leader's personal character.

I next found that there was a significant, positive correlation between the parameter, empowering, and the evaluative factor. This

correlation was 0.733. Three factors joined the lead parameter in this family. Team-builder (0.741), uses rewards more than punishments (0.735), and concerned for others (0.733) all add to the idea embodied in empowering. The key here is how the leader deals with those around him. Followers sense that they are trusted, respected, part of the team, and recognized. This apparent need for superlative interpersonal skills is also reminiscent of Factor 1 found in the factor analysis segment of this research. Distinguishing it as separate factor is subjective but I feel warranted. However, I would be remiss if I did not report that the two lead parameters, highly respected and empowering, were significantly, positively correlated (0.777,  $p < 0.0001$ ).

Of those parameters not yet assigned to a family, the one having the highest positive correlation with the evaluative factor was provides relevance and meaning. The correlation was 0.706. Four other parameters seem to be cognitively related to the leader's ability to provide such relevance. These parameters with their correlation to the lead parameter were persuasive (0.764), perceptive (0.755), self-confident (0.711), and unaffected by crises (0.707). This family of parameters seems to indicate that understanding and insight coupled with confidence and composure is a powerful combination perceived by followers as evaluatively good. This factor has no parallel in the six factors derived by factor analysis.

The fourth factor derived using this method anchors on the parameter, effective. This parameter's correlation with the evaluative factor was 0.561 which is still significant at the 0.0001 level. Four parameters showed significant, positive correlation with the

parameter, effective. The most highly correlated was successful (0.766). Also significantly correlated with perceived effectiveness were technically proficient (0.664), highly devoted (0.639), and willing to risk self (0.427). This group of parameters passes the test of semantic sense, also. This factor contains the perception of a clear sense of direction, set of goals, or vision of the future. Coupled with this is the will and skill to press on and realize the dreams. In this factor there appears a strong commitment to the organization and its success. This nearly parallels the fourth factor extracted using the rotated principal factors method.

Another factor found by this method revolves around the parameter, provides a challenging environment. This parameter had a correlation of 0.483 with the evaluative factor. This correlation was still significant at the 0.0001 level. Three other parameters join the lead parameter in this family. Catalyst for change (0.621), unconventional (0.540), and visionary (0.339) all relate cognitively to the anchoring parameter and were significant in their positive correlation with it. This factor encompasses the generation of an acceptance of, even an excitement toward, organizational change. This family can measure the integration of an "ongoing improvement" (Goldratt and Cox, 1986:267) mentality into the organization.

Similar to group members was the sixth and final parameter found to be positively, significantly correlated (0.452) to the evaluative factor. Thus, I selected it as the anchor for the final positive family. The idea of a group membership is also found in the parameter, relationship-oriented. The correlation between these two family



members was 0.371 ( $p < 0.0001$ ). When combined into this factor, the two original parameters leave a sense of camaraderie rather than similarity. This factor measures kinship between the leader and the followers.

The first family of parameters with a significant, negative correlation with the evaluative factor anchors on intolerant of differing opinions. The correlation found was -0.750. I added to this family the parameters, distant and tenacious, based on the two tests of semantic sense and correlation. The correlation between the anchor and distant was 0.671; between the anchor and tenacious, it was 0.621. The general sense conveyed by this combination of parameters is as follows. This factor should measure the degree to which the leader is perceived as single-minded, opinionated, and stubborn. This factor can also quantify the degree to which this quality causes the leader to distance to himself from those of differing opinions. The measurement may establish how far the leader goes in surrounding herself with those of like mind.

The second negative factor anchors on arrogant although the composition of the family is slightly more complex than simple arrogance. Arrogant and the evaluative factor correlate at -0.568. Those coupled with the lead parameter were exhibits a strong need for power (0.638), generates a competitive environment (0.590), assertive (0.536), and exhibits a strong need to influence (0.397). The combination of these parameters leaves the impression of a dominating personality. This is clearly reminiscent of Factor 2 as extracted in the previous factor analysis. When operationalized with semantic

differentials this factor should be used to measure aggressiveness or a willingness to use power rather than group consensus to achieve goals.

I used reckless as the flagship for the third negative parameter. The correlation with the evaluative factor was  $-0.513$ . Two parameters showed a significant, positive correlation with the lead parameter. The two were independent ( $0.390$ ), and unconventional ( $0.316$ ). These three parameters when combined describe a behavior pattern outside the norm that some perceive as reckless. There appears to be little effort made to check decisions or actions against the group. This behavior can be perceived as fool-hardy in an organizational context. This set of parameters combined into one factor should measure this concept.

The final two factors derived by this method each stand alone as they did in the original list of 37 parameters. Image conscious is negatively correlated with the evaluative factor ( $-0.285$ ) and this correlation is significant at the  $0.001$  level. Forthright is also negatively correlated with the evaluative factor ( $-0.144$ ) but this correlation is only significant at the  $0.05$  level. Recall that the description of the parameter includes bluntness at the expense of others' feelings. Perhaps this brings the negative connotation to the parameter.

*The Use of Cronbach's Coefficient Alpha to Select Pairs for Measuring the Factors Derived by Pearson Product Moment Coefficient of Correlation*

In a method identical to that presented before, I calculated composite alphas for each of the 11 factors derived by using the

Pearson product moment coefficient of correlation. The parameters were operationalized using the scales retained in the previous section titled, Findings for Each Theorized Parameter. As an example, the factor that measures aggressiveness and the willingness to use power is operationalized using the retained scales for the original parameters arrogant, assertive, exhibits a strong need for power, exhibits a strong need to influence, and generates a competitive environment. In this instance, the factor was first measured by 16 semantic differentials. Improvements were made as long as the opportunity presented itself.

I then constructed three separate variations of this 11-factor instrument. The first is the most extensive and contains all 151 of the scales I retained after this calculation of the alphas.

I then produced a version using 10-item scales. For each of the 11 factors, I chose the most positively correlated of the scales. The target number of scales for this second version was 10. I could not keep 10 in all cases since some factors began with less than 10. This produced a version with 98 scales.

Finally, a smaller test contains only the 5 scales most highly correlated within each of the 11 factors, or 55 semantic differentials.

Again, I have used tables to summarize my work on selecting scales to measure each factor. Tables 135-145 in Appendix C contain the scales for the full, 10-item, and 5-item versions of the instrument. The heading of each table shows the factor number and the column heading reflect the reliability attained for the each version.

The first column contains all the scales retained to achieve the highest, published alpha. The second column provides the 10-item version. The third column contains the scales to be used in the 5-item version. The purpose of providing the various versions is to allow future researchers to adapt the testing method to the particular research objective.

### *Summary*

This chapter began with information concerning the administration of the initial instrument. Recall that the sample size used for data analysis was 146. The demographic statistics show the sample to be predominantly white males, with college educations, of an average age just over 33 years.

The bulk of this chapter was spent relating information concerning the 37 theorized parameters. I presented Cronbach's coefficient of reliability ( $\alpha$ ) for each of the parameters (and three anchoring factors). Ignoring the potency factor which was not used in factor analysis, these alphas ranged from a low of 0.537 to a high of 0.918. 19 reliability coefficients exceeded 0.800 and 28 exceeded 0.700. Along with the reliability of each set of scales, I enumerated the scales that remained to measure each parameter.

With each parameter, I also included the loadings on each of six factors. These factors were established using an adaptation of confirmatory factor analysis. Each factor achieved an eigenvalue exceeding 1.0. I characterized each of the six factors after determining unique and differentiating loadings.

Then using correlations and subjective groupings, I characterized 11 factors. Four of these 11 were closely related to three of the previous six. I used these factors to assemble three instruments of different sizes for use in further testing.

The final chapter in this thesis follows. There the reader can find the conclusion reached during the processes just described. I have included recommendations for further research and regarding the applicability of the instruments developed here.

## *V. Conclusions and Recommendations*

In this chapter are the conclusions arrived at during this research effort. My conclusions will follow the same order already used in the preceding chapters. I first address conclusions derived from the literature review. The next section will address conclusions found in the implementation of the methodology. Next, I present my conclusions related to the data I obtained and presented in the previous chapter.

Also in this chapter, I lay out some recommendations for further research in the area of organizational charismatic leadership. The recommendations concern future uses of the instruments developed in this research effort and possible methodological designs.

Finally, I discuss the success or failure in meeting each of the research objectives. Each objective is discussed and rationale provided for my conclusion regarding completion.

### *Conclusions*

*Conclusions From the Literature Review.* Throughout the literature, I discovered recurring mention of the lack of empirical data to support theories. Apparently little has been done to remedy the situation.

If charismatic leadership is capable of transforming organizations, this is reason enough to go beyond theorizing. As far as possible, the subject must be pursued into the operational realm. Organizations can use whatever guidance scientists provide as long as

the guidance is factual. Empirical evidence is the way to provide the factual guidance needed.

Attribution theory provides an attractive framework on which to hang the operationalization of charisma and gather empirical evidence. Perceptions can be measured and quantified across populations.

However, the use of attribution theory is not the only avenue that should be pursued. As reported in the literature review, characterizations of the followers of charismatic leaders are of vital concern. Also, the situations that encourage the emergence of charismatic leaders need to be characterized empirically. Finally, the internal, psychological make-up of charismatic leaders needs to be quantified using personality testing.

There is one final conclusion to be drawn from the literature. It is now time for a mid-range theory, a theory that will coalesce the work done by previous theorists into a more compact and testable one. Scientists have published sufficient theoretical work to provide researchers with work for several years. Using the data they gather, an organizational scientist can surely sort through the theoretical jungle and find the tenets worth keeping and those that should be discarded. After operationalizing the concept of charisma, a mid-range model should appear, which validates some previous theories and negates others.

*Conclusions From the Methodology.* The combination of the critical incident technique and the semantic differential is a convenient and powerful way to operationalize charisma. Subjects provide individual characterizations of known charismatic leaders. The

semantic differential is not hard to develop and provides a high degree of rigor. Additionally, this method provides large amounts of data with little time invested by the subjects. These facts make this instrumentation ideal for descriptive research.

*Conclusions From the Data.* This instrument type can be completed without difficulty by most subjects. Less than 10 percent of the subjects returned the instrument without successfully completing it.

The 37 parameters taken from the theories lend themselves well to measurement using the semantic differential. Only two original parameters had measurement scales with a Cronbach's alpha below 0.600. These were relationship-oriented and visionary. The majority achieved reliabilities over 0.800. The semantic differentials measuring the 37 original parameters were incorporated into the instrument found in Appendix B. Completing the instrument in Appendix B was the primary objective of this research.

Factor analysis by the rotated principal factors method, while attractive, left much to subjective interpretation. The reality would seem to be that each person reviewing the data would see a slightly different nuance in each factor. This interpretative difficulty was only compounded by the vast number of significant parameters in Factors 1 and 2.

The second analysis method, use of correlations, is just as likely to have identified valid charismatic parameters. My initial feeling was that the use of correlations would be more subjective than factor analysis. However, I found clearer associations among the parameters using correlations. This method made it easier to estab-



lish semantic sense. Even though the number of factors increased from six to 11, the latter were more focused. I was able to find greater cognitive and semantic cohesion when only five or six of the original parameters were grouped together. Importantly, none of the factors derived by this method were contradicted by the analysis done using rotated principal factors.

My most important conclusion comes from this analysis done by correlation. Initially, I was careful in the literature review to allow slight nuances of meaning to distinguish potential parameters. Recall the differentiations made between trustworthy and trusted, and between effective and successful. The analysis seems to indicate that such fine distinctions were not necessary.

During analysis, I found many significant correlations between the parameters. This evidence of relationship indicates the need to collapse the original larger set of parameters into a much smaller set. Table 133 summarizes the collapsing that took place using subjective analysis of the correlations.

Table 133. Summary of Relationship  
Between the 37 Parameters and the 11 Factors

| 37 Original Theorized Parameters   | FEED INTO: | 11 Factors Derived Using Pearson PMC of Correlation  |
|--|------------|--|
| Highly respected<br>Trusted<br>Sets an example<br>Trustworthy<br>Moral                                 | ----->     | Respect, trust, and credibility  |
| Empowering<br>Concerned for others<br>Team-builder<br>Uses rewards vs. punishes                        | ----->     | Empowering through respect, trust, consideration and affiliation                                       |
| Provides relevance and meaning<br>Persuasive<br>Perceptive<br>Self-confident<br>Unaffected by Crises   | ----->     | Displays confidence, insight, and composure, all of these combining to aid the leader's persuasiveness |
| Effective<br>Successful<br>Technically proficient<br>Highly devoted<br>Willing to risk self            | ----->     | Extremely effective in the work place because of commitment and skill                                  |
| Provides a challenging environment<br>Catalyst for change<br>Visionary<br>Unconventional               | ----->     | Creates an excitement for and commitment to change in the organization                                 |
| Similar to group members<br>Relationship-oriented  | ----->     | A kinship felt among group members with the leader   |
| Intolerant of differing opinions<br>Distant<br>Tenacious   | ----->     | A tenacity toward one viewpoint to the exclusion of others   |
| Arrogant<br>Exhibits need for power<br>Exh'ts need for influence<br>Generates competition<br>Assertive | ----->     | A dominating person willing to use power and influence to achieve goals                                |

Table 133. Summary of Relationship  
Between the 37 Parameters and the 11 Factors  
(Continued)

| 37 Original Theorized Parameters          | FEED INTO:  | 11 Factors Derived Using Pearson PMC of Correlation                      |
|---|-------------|--|
| Reckless<br>Independent<br>Unconventional | FEED INTO:  | Behaves with independence and initiative to the exclusion of group input |
| Image conscious                           | FEEDS INTO: | Image conscious  |
| Forthright                                | FEEDS INTO: | Forthright or blunt  |

### *Recommendations*

*Recommendations Concerning the Instruments.* The four instruments found in Appendices B and C are designed to test specific parameters. The instrument in Appendix B can be used to test the 37 parameters taken from the eight theories discussed in the literature review. The instruments in Appendix C all test the 11 parameters I found through this research effort.

My first recommendation is that each of the instruments should be retested to verify the alphas. This retest should be administered to a larger sample size. The sample size would ideally allow conclusions to be drawn at the 0.01 level of significance.

If coefficients of reliability remain low for any of the parameters, I recommend a reconstruction of those sets of differentials. Then the improved scales should be substituted into the existing instruments.

For the three versions of the instrument in Appendix C, I recommend a parallel administration to similar groups. The results of these tests need to be compared to determine if responses for one version are significantly different than the responses for the others. This will assess the ability of the shorter versions to capture the meaning conveyed in the larger, full version.

*Recommendations Concerning Methodology.* The instruments developed here can be used in at least three different ways. The first will test the contribution of each parameter to the attribution of charisma. The second will allow a researcher to measure differences between follower-attribution and self-perception. The instruments can also be used in a training or consulting environment in a format similar to the second.

First, two parallel forms can be administered to the same subjects. With the first form, subjects should be asked to identify a non-charismatic leader in an organizational setting. The critical incident and semantic differentials should then describe this leader. Then, the subjects should use the second form to characterize a charismatic leader. This method will allow a researcher to empirically decide which parameters can be used to discriminate between charismatic and non-charismatic leaders. A use similar to this can be found in Stone (1990).

Second, the same form can be administered to the followers of a leader and the leader. Both should be instructed to characterize the leader with semantic differentials. None of the subjects would need to complete the critical incident since identification of a single

leader operationalizes the concept. Analysis of the results from this testing will indicate differences between the leader's perception of himself and the perception of others.

The third method is intrinsically more practical than the previous ones which tend to academic or research-oriented. In a training or consulting environment the instruments can be used to help leaders identify strengths and weaknesses in their leader-follower relationships. The instruments would be administered as described above in the second application.

#### *Revisiting the Research Objectives*

I found eight theories that described the operation of charisma within organizations. I discussed each of these at length in the literature review of Chapter II.

Chapter II also gives a complete discussion of the theoretical parameters that contribute to the attribution of charisma. I detailed 37 such parameters extracted from the eight theories.

I used semantic differentials to operationally define each of the 37 parameters. I found that both word and phrase pairs were needed to capture the intent of some parameters. These definitions were presented in Chapter III.

I conducted a pilot study at the 0.10 level of significance to test the adequacy of the operational definitions. The definitions for some parameters were modified after calculating Cronbach's alphas. All the definitions that resulted were adequate, given the descriptive nature of this research. These definitions were used to perform

factor and correlation analyses. From the correlation analysis, I discovered that 37 parameters could be collapsed into 11 new, composite factors.

The 37 parameters and 11 composite factors are now operationalized and can be tested. The instruments used to operationalize them are found in Appendices B and C.

In conclusion, each of the research objectives established for this thesis were met. The results provide a rich basis for future research in leadership and a firm foundation for diagnosis of leadership within organizations.

## *Appendix A: Initial Instrument*

### INTRODUCTION

The research work you are taking part in is being conducted by Capt Daniel K. Hicks in partial fulfillment of the requirements for a Master of Science degree conferred by the Air Force Institute of Technology.

I appreciate your time and efforts in support of this project. Your help is strictly voluntary. Under no circumstances will you be compelled to participate in this study. If you begin but decide not to continue, simply hand back these papers to the person who gave them to you or send them to me. You may refuse to participate or continue without any fear of penalty or loss of benefit. I want to assure you that I will hold in strictest confidence any answers you provide. Your name cannot be associated with any set of responses. Only I and my research associates will ever see the responses that come back. Even we will have no way to identify a particular response as yours. The demographic information I've asked for at the beginning of this questionnaire will be used for analysis only and is not complete enough to identify you. The numbers on the pages are only used to help me identify the separate pages as being part of one questionnaire, should the pages become separated.

My hope is that this project will contribute to the body of knowledge concerning leadership. I believe that only you, as a member of an organization, can adequately describe your perceptions of the leaders you have known.

In the second part of this instrument, I want you to describe, as best you can, a specific incident in which you interacted with an organizational leader. I want you to choose a leader you would call charismatic. Then in the third part, I want you to describe the charismatic leader by selecting between words and phrases with opposite meanings. The word or phrase pairs should allow you to describe your perceptions of the charismatic leader's behaviors or character.

I will be doing statistical analysis on all the responses I get. Your responses, combined with those of the others who participated in this study, will provide direction for further studies about charismatic leadership. If you are interested in this subject, I will send you a copy of my results. Fill out the information on the next page. Tear that page out and hand it in when you turn in the completed questionnaire.

YES, I'm interested in the results of your study on charismatic leadership. Please forward a copy of your findings to me at the address below.

Name\_\_\_\_\_

Street Address\_\_\_\_\_

City\_\_\_\_\_ State\_\_\_\_\_ ZIP\_\_\_\_\_

Other-Than-Mailing Address\_\_\_\_\_

\_\_\_\_\_



## PART ONE - DEMOGRAPHIC DATA

Please answer the following items concerning yourself. All of your answers will be confidential. I will use the information you provide to characterize groups, not individuals.

1. Age on last birthday: \_\_\_\_
2. Highest education level completed (check one):
  - \_\_\_ grade school
  - \_\_\_ high school diploma (or GED)
  - \_\_\_ technical/associate degree
  - \_\_\_ college degree
  - \_\_\_ masters degree
  - \_\_\_ masters degree plus
3. Race:
  - \_\_\_ American Indian/Alaskan Native
  - \_\_\_ Asian/Asian American/Pacific Islander
  - \_\_\_ Black
  - \_\_\_ Hispanic
  - \_\_\_ White
  - \_\_\_ Other
4. Sex:     \_\_\_ Female     \_\_\_ Male

## PART TWO - INCIDENT SUMMARY

### INSTRUCTIONS:

Please think back to a time when you were a member of an organization with a charismatic leader in it. This person may have been a superior, a peer, or a subordinate of yours. Recall one incident involving that leader that you think fairly describes the way he or she operated. Below, write a summary of that incident.

### PART THREE - DESCRIPTIVE WORD AND PHRASE PAIRS

#### INSTRUCTIONS:

Focus on the charismatic leader you were dealing with in the incident you wrote about in Part Two. Your personal feelings about that charismatic leader will help you in the exercise that follows. All of the word or phrase pairs below apply to your perception of the leader. Place an "X" on one of the lines between each of the word pairs listed on the pages that follow. Use your mark to show which word better describes your feelings about the leader's actions, words, character or behaviors. The farther you place your "X" to the left or right indicates how accurately the word found there describes the charismatic leader you knew. An "X" placed on the middle line indicates both or neither of the words adequately describes the leader.

#### KEY:

- 1 - The word on the LEFT is an EXTREMELY ACCURATE description.
- 2 - The word on the LEFT is a MODERATELY ACCURATE description.
- 3 - The word on the LEFT is a SLIGHTLY ACCURATE description.
- 4 - Neither word or both words apply to this leader.
- 5 - The word on the RIGHT is a SLIGHTLY ACCURATE description.
- 6 - The word on the RIGHT is a MODERATELY ACCURATE description.
- 7 - The word on the RIGHT is an EXTREMELY ACCURATE description.

#### EXAMPLE:

|      |   |   |   |   |   |   |   |       |
|------|---|---|---|---|---|---|---|-------|
|      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |       |
| tall | — | — | — | — | — | X | — | short |

By choosing this response, you would be saying, "The word, SHORT, is a moderately accurate description of the charismatic leader I knew."

Ignore the numbers you'll see beside the word pairs. They are there only to help me later with computer scoring and analysis.

Remember, the pairs below describe the charismatic leader.

Relax. Since this deals only with your perceptions, every answer you choose is right!

KEY:

- 1 - The word on the LEFT is an EXTREMELY ACCURATE description.
- 2 - The word on the LEFT is a MODERATELY ACCURATE description.
- 3 - The word on the LEFT is a SLIGHTLY ACCURATE description.
- 4 - Neither word or both words apply to this leader.
- 5 - The word on the RIGHT is a SLIGHTLY ACCURATE description.
- 6 - The word on the RIGHT is a MODERATELY ACCURATE description.
- 7 - The word on the RIGHT is an EXTREMELY ACCURATE description.

|     |                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                                    |
|-----|-----------------------------------|---|---|---|---|---|---|---|------------------------------------|
| 1.  | docile                            | — | — | — | — | — | — | — | aggressive                         |
| 2.  | uncertain                         | — | — | — | — | — | — | — | steadfast                          |
| 3.  | triumph                           | — | — | — | — | — | — | — | defeat                             |
| 4.  | unconcerned with reputation       | — | — | — | — | — | — | — | concerned with reputation          |
| 5.  | promotes unity                    | — | — | — | — | — | — | — | divisive                           |
| 6.  | upbraids                          | — | — | — | — | — | — | — | praises                            |
| 7.  | despised                          | — | — | — | — | — | — | — | revered                            |
| 8.  | familiar                          | — | — | — | — | — | — | — | distant                            |
| 9.  | removed                           | — | — | — | — | — | — | — | intimate                           |
| 10. | transformational                  | — | — | — | — | — | — | — | stagnant                           |
| 11. | authentic                         | — | — | — | — | — | — | — | values appearances                 |
| 12. | unreceptive                       | — | — | — | — | — | — | — | receptive                          |
| 13. | agitated                          | — | — | — | — | — | — | — | poised                             |
| 14. | a family person                   | — | — | — | — | — | — | — | strictly business                  |
| 15. | pompous                           | — | — | — | — | — | — | — | unassuming                         |
| 16. | encourages non-work relationships | — | — | — | — | — | — | — | discourages non-work relationships |
| 17. | energetic                         | — | — | — | — | — | — | — | inert                              |
| 18. | unconventional                    | — | — | — | — | — | — | — | ordinary                           |
| 19. | manipulative                      | — | — | — | — | — | — | — | often manipulated                  |
| 20. | ethical                           | — | — | — | — | — | — | — | unethical                          |
| 21. | persuasive                        | — | — | — | — | — | — | — | unpersuasive                       |
| 22. | inattentive                       | — | — | — | — | — | — | — | watchful                           |
| 23. | unimaginative                     | — | — | — | — | — | — | — | creative                           |
| 24. | lofty                             | — | — | — | — | — | — | — | mundane                            |
| 25. | safe                              | — | — | — | — | — | — | — | dangerous                          |
| 26. | loses                             | — | — | — | — | — | — | — | wins                               |
| 27. | in touch                          | — | — | — | — | — | — | — | out of touch                       |
| 28. | tolerant                          | — | — | — | — | — | — | — | intolerant                         |
| 29. | radical                           | — | — | — | — | — | — | — | typical                            |
| 30. | illogical                         | — | — | — | — | — | — | — | logical                            |
| 31. | easily swayed                     | — | — | — | — | — | — | — | staunch                            |
| 32. | optimizes                         | — | — | — | — | — | — | — | suboptimizes                       |
| 33. | contentious                       | — | — | — | — | — | — | — | obliging                           |
| 34. | competitive                       | — | — | — | — | — | — | — | collaborative                      |
| 35. | inept                             | — | — | — | — | — | — | — | proficient                         |

KEY:

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|     |                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                       |
|-----|---------------------|---|---|---|---|---|---|---|-----------------------|
| 36. | doubts co-workers   | — | — | — | — | — | — | — | trusts co-workers     |
| 37. | timid               | — | — | — | — | — | — | — | poised                |
| 38. | commends            | — | — | — | — | — | — | — | chides                |
| 39. | befuddled           | — | — | — | — | — | — | — | collected             |
| 40. | status quo          | — | — | — | — | — | — | — | reformatinal          |
| 41. | risky               | — | — | — | — | — | — | — | cautious              |
| 42. | suspected           | — | — | — | — | — | — | — | believed              |
| 43. | smothering          | — | — | — | — | — | — | — | empowering            |
| 44. | valuable            | — | — | — | — | — | — | — | worthless             |
| 45. | indifferent         | — | — | — | — | — | — | — | gregarious            |
| 46. | idealistic          | — | — | — | — | — | — | — | pragmatic             |
| 47. | thoughtless         | — | — | — | — | — | — | — | thoughtful            |
| 48. | held in high esteem | — | — | — | — | — | — | — | scorned               |
| 49. | fast                | — | — | — | — | — | — | — | slow                  |
| 50. | heavy               | — | — | — | — | — | — | — | light                 |
| 51. | amateur             | — | — | — | — | — | — | — | skilled               |
| 52. | inconsiderate       | — | — | — | — | — | — | — | considerate           |
| 53. | political           | — | — | — | — | — | — | — | forthright            |
| 54. | insistent           | — | — | — | — | — | — | — | reticent              |
| 55. | seeks own interests | — | — | — | — | — | — | — | seeks group interests |
| 56. | cooperative         | — | — | — | — | — | — | — | confrontational       |
| 57. | submissive          | — | — | — | — | — | — | — | overpowering          |
| 58. | good                | — | — | — | — | — | — | — | bad                   |
| 59. | productive          | — | — | — | — | — | — | — | unproductive          |
| 60. | active              | — | — | — | — | — | — | — | passive               |
| 61. | achieves            | — | — | — | — | — | — | — | flounders             |
| 62. | soft                | — | — | — | — | — | — | — | hard                  |
| 63. | direct              | — | — | — | — | — | — | — | ambiguous             |
| 64. | innovative          | — | — | — | — | — | — | — | routine               |
| 65. | depended on         | — | — | — | — | — | — | — | not depended on       |
| 66. | visionary           | — | — | — | — | — | — | — | practical             |
| 67. | obedient            | — | — | — | — | — | — | — | commanding            |
| 68. | cool                | — | — | — | — | — | — | — | flustered             |
| 69. | evasive             | — | — | — | — | — | — | — | candid                |
| 70. | guarded             | — | — | — | — | — | — | — | daring                |

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|      |                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                        |
|------|----------------------|---|---|---|---|---|---|---|------------------------|
| 71.  | illuminates          | — | — | — | — | — | — | — | clouds                 |
| 72.  | non-exemplary        | — | — | — | — | — | — | — | exemplary              |
| 73.  | qualified            | — | — | — | — | — | — | — | unqualified            |
| 74.  | yielding             | — | — | — | — | — | — | — | tenacious              |
| 75.  | trivial              | — | — | — | — | — | — | — | significant            |
| 76.  | inspiring            | — | — | — | — | — | — | — | stifling               |
| 77.  | highly regarded      | — | — | — | — | — | — | — | held in contempt       |
| 78.  | gets results         | — | — | — | — | — | — | — | spins wheels           |
| 79.  | unflappable          | — | — | — | — | — | — | — | distracted             |
| 80.  | trusted              | — | — | — | — | — | — | — | mistrusted             |
| 81.  | rewarder             | — | — | — | — | — | — | — | punisher               |
| 82.  | conceited            | — | — | — | — | — | — | — | humble                 |
| 83.  | apathetic            | — | — | — | — | — | — | — | empathetic             |
| 84.  | expert               | — | — | — | — | — | — | — | novice                 |
| 85.  | to be imitated       | — | — | — | — | — | — | — | not to be imitated     |
| 86.  | uninterested         | — | — | — | — | — | — | — | interested             |
| 87.  | unscrupulous         | — | — | — | — | — | — | — | virtuous               |
| 88.  | reserved             | — | — | — | — | — | — | — | forceful               |
| 89.  | ridiculed            | — | — | — | — | — | — | — | honored                |
| 90.  | discreet             | — | — | — | — | — | — | — | blunt                  |
| 91.  | composed             | — | — | — | — | — | — | — | easily ruffled         |
| 92.  | accepts the minimum  | — | — | — | — | — | — | — | expects a lot          |
| 93.  | principled           | — | — | — | — | — | — | — | unprincipled           |
| 94.  | the ideal            | — | — | — | — | — | — | — | not ideal              |
| 95.  | unwilling to listen  | — | — | — | — | — | — | — | willing to listen      |
| 96.  | reckless             | — | — | — | — | — | — | — | circumspect            |
| 97.  | concerned for others | — | — | — | — | — | — | — | unconcerned for others |
| 98.  | careless             | — | — | — | — | — | — | — | careful                |
| 99.  | secure               | — | — | — | — | — | — | — | insecure               |
| 100. | like other members   | — | — | — | — | — | — | — | unlike other members   |
| 101. | weak                 | — | — | — | — | — | — | — | strong                 |
| 102. | calm                 | — | — | — | — | — | — | — | excitable              |
| 103. | present-oriented     | — | — | — | — | — | — | — | future-oriented        |
| 104. | positive role-model  | — | — | — | — | — | — | — | negative role-model    |
| 105. | arrogant             | — | — | — | — | — | — | — | demure                 |

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|      |                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                             |
|------|----------------------------|---|---|---|---|---|---|---|-----------------------------|
| 106. | factionist                 | — | — | — | — | — | — | — | team-builder                |
| 107. | impersistent               | — | — | — | — | — | — | — | persistent                  |
| 108. | pretentious                | — | — | — | — | — | — | — | unpretentious               |
| 109. | conflict-averse            | — | — | — | — | — | — | — | conflict-prone              |
| 110. | reconciler                 | — | — | — | — | — | — | — | trouble-maker               |
| 111. | appropriate                | — | — | — | — | — | — | — | inappropriate               |
| 112. | dreamer                    | — | — | — | — | — | — | — | realist                     |
| 113. | self-possessed             | — | — | — | — | — | — | — | unsettled                   |
| 114. | dependable                 | — | — | — | — | — | — | — | undependable                |
| 115. | dominating                 | — | — | — | — | — | — | — | subservient                 |
| 116. | strategic                  | — | — | — | — | — | — | — | tactical                    |
| 117. | irrelevant                 | — | — | — | — | — | — | — | relevant                    |
| 118. | genuine                    | — | — | — | — | — | — | — | puts up a front             |
| 119. | doubted                    | — | — | — | — | — | — | — | relied on                   |
| 120. | nice                       | — | — | — | — | — | — | — | awful                       |
| 121. | individualistic            | — | — | — | — | — | — | — | follows the group           |
| 122. | confusing                  | — | — | — | — | — | — | — | convincing                  |
| 123. | combative                  | — | — | — | — | — | — | — | accommodating               |
| 124. | notices poor work          | — | — | — | — | — | — | — | notices good work           |
| 125. | weakens                    | — | — | — | — | — | — | — | strengthens                 |
| 126. | encourages different ideas | — | — | — | — | — | — | — | discourages different ideas |
| 127. | revolutionary              | — | — | — | — | — | — | — | maintainer                  |
| 128. | sweet                      | — | — | — | — | — | — | — | bitter                      |
| 129. | shy                        | — | — | — | — | — | — | — | assured                     |
| 130. | common                     | — | — | — | — | — | — | — | original                    |
| 131. | tactful                    | — | — | — | — | — | — | — | outspoken                   |
| 132. | egotistical                | — | — | — | — | — | — | — | modest                      |
| 133. | uncertain                  | — | — | — | — | — | — | — | certain                     |
| 134. | self-effacing              | — | — | — | — | — | — | — | self-important              |
| 135. | aloof                      | — | — | — | — | — | — | — | open                        |
| 136. | weak                       | — | — | — | — | — | — | — | efficacious                 |
| 137. | noncompelling speaker      | — | — | — | — | — | — | — | compelling speaker          |
| 138. | same                       | — | — | — | — | — | — | — | different                   |
| 139. | shares group goals         | — | — | — | — | — | — | — | has dissimilar goals        |
| 140. | constant                   | — | — | — | — | — | — | — | double-minded               |

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|      |                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                                |
|------|----------------------------|---|---|---|---|---|---|---|--------------------------------|
| 141. | shaky                      | — | — | — | — | — | — | — | solid                          |
| 142. | unorthodox                 | — | — | — | — | — | — | — | traditional                    |
| 143. | assertive                  | — | — | — | — | — | — | — | submissive                     |
| 144. | vacillating                | — | — | — | — | — | — | — | resolute                       |
| 145. | effective                  | — | — | — | — | — | — | — | ineffective                    |
| 146. | observant                  | — | — | — | — | — | — | — | unobservant                    |
| 147. | prudent                    | — | — | — | — | — | — | — | rash                           |
| 148. | non-member                 | — | — | — | — | — | — | — | member                         |
| 149. | easily swayed              | — | — | — | — | — | — | — | stubborn                       |
| 150. | non-representative         | — | — | — | — | — | — | — | representative                 |
| 151. | self-deprecating           | — | — | — | — | — | — | — | haughty                        |
| 152. | attentive to others' needs | — | — | — | — | — | — | — | disinterested in others' needs |
| 153. | isolationist               | — | — | — | — | — | — | — | people-oriented                |
| 154. | makes a difference         | — | — | — | — | — | — | — | ineffectual                    |
| 155. | influential                | — | — | — | — | — | — | — | uninfluential                  |
| 156. | non-directive              | — | — | — | — | — | — | — | directive                      |
| 157. | applauds                   | — | — | — | — | — | — | — | rebukes                        |
| 158. | hesitant                   | — | — | — | — | — | — | — | confident                      |
| 159. | gathers opinions           | — | — | — | — | — | — | — | self-sufficient                |
| 160. | approachable               | — | — | — | — | — | — | — | remote                         |
| 161. | righteous                  | — | — | — | — | — | — | — | unrighteous                    |
| 162. | provides meaning           | — | — | — | — | — | — | — | meaningless                    |
| 163. | independent                | — | — | — | — | — | — | — | dependent                      |
| 164. | opinion giver              | — | — | — | — | — | — | — | opinion seeker                 |
| 165. | counted on                 | — | — | — | — | — | — | — | questioned                     |
| 166. | knowledgeable              | — | — | — | — | — | — | — | untaught                       |
| 167. | informed                   | — | — | — | — | — | — | — | uninformed                     |
| 168. | equalitarian               | — | — | — | — | — | — | — | domineering                    |
| 169. | seeks to influence         | — | — | — | — | — | — | — | easily influenced              |
| 170. | challenging                | — | — | — | — | — | — | — | unchallenging                  |
| 171. | stimulating                | — | — | — | — | — | — | — | suppressing                    |
| 172. | retiring                   | — | — | — | — | — | — | — | pushy                          |
| 173. | adventurous                | — | — | — | — | — | — | — | unadventurous                  |
| 174. | separates                  | — | — | — | — | — | — | — | encourages alliances           |
| 175. | untrustworthy              | — | — | — | — | — | — | — | trustworthy                    |



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|      |                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                        |
|------|--------------------------------|---|---|---|---|---|---|---|------------------------|
| 176. | close                          | — | — | — | — | — | — | — | detached               |
| 177. | discerning                     | — | — | — | — | — | — | — | oblivious              |
| 178. | meek                           | — | — | — | — | — | — | — | bold                   |
| 179. | has high expectations          | — | — | — | — | — | — | — | has low expectations   |
| 180. | innovative                     | — | — | — | — | — | — | — | unchanging             |
| 181. | seeks consensus                | — | — | — | — | — | — | — | self-determining       |
| 182. | succeeds                       | — | — | — | — | — | — | — | fails                  |
| 183. | disreputable                   | — | — | — | — | — | — | — | respected              |
| 184. | restrictive                    | — | — | — | — | — | — | — | provoking              |
| 185. | unconcerned with his/her image | — | — | — | — | — | — | — | image conscious        |
| 186. | unfeeling                      | — | — | — | — | — | — | — | compassionate          |
| 187. | unknown                        | — | — | — | — | — | — | — | well-known             |
| 188. | rejecting                      | — | — | — | — | — | — | — | accepting              |
| 189. | cause-oriented                 | — | — | — | — | — | — | — | career-oriented        |
| 190. | indifferent                    | — | — | — | — | — | — | — | devoted                |
| 191. | clueless                       | — | — | — | — | — | — | — | perceptive             |
| 192. | obstinate                      | — | — | — | — | — | — | — | flexible               |
| 193. | sharp                          | — | — | — | — | — | — | — | dull                   |
| 194. | restraining                    | — | — | — | — | — | — | — | rousing                |
| 195. | stirring                       | — | — | — | — | — | — | — | repressive             |
| 196. | accomplishes                   | — | — | — | — | — | — | — | fails                  |
| 197. | proud                          | — | — | — | — | — | — | — | lowly                  |
| 198. | diplomatic                     | — | — | — | — | — | — | — | frank                  |
| 199. | like me                        | — | — | — | — | — | — | — | unlike me              |
| 200. | prejudiced                     | — | — | — | — | — | — | — | open-minded            |
| 201. | bulldoggish                    | — | — | — | — | — | — | — | fluctuating            |
| 202. | sows discord                   | — | — | — | — | — | — | — | builds bridges         |
| 203. | congratulates                  | — | — | — | — | — | — | — | criticizes             |
| 204. | easily controlled              | — | — | — | — | — | — | — | controlling            |
| 205. | conservative                   | — | — | — | — | — | — | — | progressive            |
| 206. | ineffective communicator       | — | — | — | — | — | — | — | effective communicator |
| 207. | self-preserving                | — | — | — | — | — | — | — | self-sacrificing       |
| 208. | unaware                        | — | — | — | — | — | — | — | aware                  |
| 209. | leads willingly                | — | — | — | — | — | — | — | leads reluctantly      |
| 210. | relies on others               | — | — | — | — | — | — | — | autonomous             |

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|      |                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                       |
|------|-------------------|---|---|---|---|---|---|---|-----------------------|
| 211. | not credible      | — | — | — | — | — | — | — | credible              |
| 212. | builds confidence | — | — | — | — | — | — | — | undermines confidence |
| 213. | moral             | — | — | — | — | — | — | — | immoral               |
| 214. | unreliable        | — | — | — | — | — | — | — | reliable              |
| 215. | unwavering        | — | — | — | — | — | — | — | wavering              |

*Appendix B: Instrument to Test 37 Theorized Parameters*

PART ONE - DEMOGRAPHIC DATA

Please answer the following items concerning yourself. All of your answers will be confidential. I will use the information you provide to characterize groups, not individuals.

1. Age on last birthday: \_\_\_\_
2. Highest education level completed (check one):
  - \_\_\_ grade school
  - \_\_\_ high school diploma (or GED)
  - \_\_\_ technical/associate degree
  - \_\_\_ college degree
  - \_\_\_ masters degree
  - \_\_\_ masters degree plus
3. Race:
  - \_\_\_ American Indian/Alaskan Native
  - \_\_\_ Asian/Asian American/Pacific Islander
  - \_\_\_ Black
  - \_\_\_ Hispanic
  - \_\_\_ White
  - \_\_\_ Other
4. Sex:    \_\_\_ Female        \_\_\_ Male

## PART TWO - INCIDENT SUMMARY

### INSTRUCTIONS:

Please think back to a time when you were a member of an organization with a charismatic leader in it. This person may have been a superior, a peer, or a subordinate of yours. Recall one incident involving that leader that you think fairly describes the way he or she operated. Below, write a summary of that incident.

### PART THREE - DESCRIPTIVE WORD AND PHRASE PAIRS

#### INSTRUCTIONS:

Focus on the charismatic leader you were dealing with in the incident you wrote about in Part Two. Your personal feelings about that charismatic leader will help you in the exercise that follows. All of the word or phrase pairs below apply to your perception of the leader. Place an "X" on one of the lines between each of the word pairs listed on the pages that follow. Use your mark to show which word better describes your feelings about the leader's actions, words, character or behaviors. The farther you place your "X" to the left or right indicates how accurately the word found there describes the charismatic leader you knew. An "X" placed on the middle line indicates both or neither of the words adequately describes the leader.

#### KEY:

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- 6 - The word on the RIGHT is a MODERATELY ACCURATE description.
- 7 - The word on the RIGHT is an EXTREMELY ACCURATE description.

#### EXAMPLE:

|      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |       |
|------|---|---|---|---|---|---|---|-------|
| tall | — | — | — | — | — | X | — | short |

By choosing this response, you would be saying, "The word, SHORT, is a moderately accurate description of the charismatic leader I knew."

Ignore the numbers you'll see beside the word pairs. They are there only to help me later with computer scoring and analysis.

Remember, the pairs below describe the charismatic leader.

Relax. Since this deals only with your perceptions, every answer you choose is right!

KEY:

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|     |                                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                                    |
|-----|-----------------------------------|---|---|---|---|---|---|---|------------------------------------|
| 1.  | docile                            | — | — | — | — | — | — | — | aggressive                         |
| 2.  | uncertain                         | — | — | — | — | — | — | — | steadfast                          |
| 3.  | unconcerned with reputation       | — | — | — | — | — | — | — | concerned with reputation          |
| 4.  | promotes unity                    | — | — | — | — | — | — | — | divisive                           |
| 5.  | upbraids                          | — | — | — | — | — | — | — | praises                            |
| 6.  | despised                          | — | — | — | — | — | — | — | revered                            |
| 7.  | familiar                          | — | — | — | — | — | — | — | distant                            |
| 8.  | removed                           | — | — | — | — | — | — | — | intimate                           |
| 9.  | transformational                  | — | — | — | — | — | — | — | stagnant                           |
| 10. | authentic                         | — | — | — | — | — | — | — | values appearances                 |
| 11. | unreceptive                       | — | — | — | — | — | — | — | receptive                          |
| 12. | agitated                          | — | — | — | — | — | — | — | poised                             |
| 13. | a family person                   | — | — | — | — | — | — | — | strictly business                  |
| 14. | pompous                           | — | — | — | — | — | — | — | unassuming                         |
| 15. | encourages non-work relationships | — | — | — | — | — | — | — | discourages non-work relationships |
| 16. | energetic                         | — | — | — | — | — | — | — | inert                              |
| 17. | unconventional                    | — | — | — | — | — | — | — | ordinary                           |
| 18. | manipulative                      | — | — | — | — | — | — | — | often manipulated                  |
| 19. | ethical                           | — | — | — | — | — | — | — | unethical                          |
| 20. | persuasive                        | — | — | — | — | — | — | — | unpersuasive                       |
| 21. | inattentive                       | — | — | — | — | — | — | — | watchful                           |
| 22. | unimaginative                     | — | — | — | — | — | — | — | creative                           |
| 23. | safe                              | — | — | — | — | — | — | — | dangerous                          |
| 24. | in touch                          | — | — | — | — | — | — | — | out of touch                       |
| 25. | tolerant                          | — | — | — | — | — | — | — | intolerant                         |
| 26. | radical                           | — | — | — | — | — | — | — | typical                            |
| 27. | illogical                         | — | — | — | — | — | — | — | logical                            |
| 28. | inept                             | — | — | — | — | — | — | — | proficient                         |
| 29. | doubts co-workers                 | — | — | — | — | — | — | — | trusts co-workers                  |
| 30. | timid                             | — | — | — | — | — | — | — | poised                             |

KEY:

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- 7 - The word on the RIGHT is an EXTREMELY ACCURATE description.

|     |                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                       |
|-----|---------------------|---|---|---|---|---|---|---|-----------------------|
| 31. | commends            | — | — | — | — | — | — | — | chides                |
| 32. | befuddled           | — | — | — | — | — | — | — | collected             |
| 33. | suspected           | — | — | — | — | — | — | — | believed              |
| 34. | smothering          | — | — | — | — | — | — | — | empowering            |
| 35. | valuable            | — | — | — | — | — | — | — | worthless             |
| 36. | indifferent         | — | — | — | — | — | — | — | gregarious            |
| 37. | idealistic          | — | — | — | — | — | — | — | pragmatic             |
| 38. | thoughtless         | — | — | — | — | — | — | — | thoughtful            |
| 39. | held in high esteem | — | — | — | — | — | — | — | scorned               |
| 40. | fast                | — | — | — | — | — | — | — | slow                  |
| 41. | amateur             | — | — | — | — | — | — | — | skilled               |
| 42. | inconsiderate       | — | — | — | — | — | — | — | considerate           |
| 43. | political           | — | — | — | — | — | — | — | forthright            |
| 44. | insistent           | — | — | — | — | — | — | — | reticent              |
| 45. | seeks own interests | — | — | — | — | — | — | — | seeks group interests |
| 46. | cooperative         | — | — | — | — | — | — | — | confrontational       |
| 47. | submissive          | — | — | — | — | — | — | — | overpowering          |
| 48. | good                | — | — | — | — | — | — | — | bad                   |
| 49. | productive          | — | — | — | — | — | — | — | unproductive          |
| 50. | active              | — | — | — | — | — | — | — | passive               |
| 51. | achieves            | — | — | — | — | — | — | — | flounders             |
| 52. | direct              | — | — | — | — | — | — | — | ambiguous             |
| 53. | innovative          | — | — | — | — | — | — | — | routine               |
| 54. | visionary           | — | — | — | — | — | — | — | practical             |
| 55. | obedient            | — | — | — | — | — | — | — | commanding            |
| 56. | cool                | — | — | — | — | — | — | — | flustered             |
| 57. | evasive             | — | — | — | — | — | — | — | candid                |
| 58. | illuminates         | — | — | — | — | — | — | — | clouds                |
| 59. | non-exemplary       | — | — | — | — | — | — | — | exemplary             |
| 60. | qualified           | — | — | — | — | — | — | — | unqualified           |

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- 7 - The word on the RIGHT is an EXTREMELY ACCURATE description.

|     |                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                        |
|-----|----------------------|---|---|---|---|---|---|---|------------------------|
| 61. | yielding             | — | — | — | — | — | — | — | tenacious              |
| 62. | trivial              | — | — | — | — | — | — | — | significant            |
| 63. | inspiring            | — | — | — | — | — | — | — | stifling               |
| 64. | highly regarded      | — | — | — | — | — | — | — | held in contempt       |
| 65. | gets results         | — | — | — | — | — | — | — | spins wheels           |
| 66. | unflappable          | — | — | — | — | — | — | — | distracted             |
| 67. | trusted              | — | — | — | — | — | — | — | mistrusted             |
| 68. | rewarder             | — | — | — | — | — | — | — | punisher               |
| 69. | conceited            | — | — | — | — | — | — | — | humble                 |
| 70. | expert               | — | — | — | — | — | — | — | novice                 |
| 71. | unscrupulous         | — | — | — | — | — | — | — | virtuous               |
| 72. | reserved             | — | — | — | — | — | — | — | forceful               |
| 73. | ridiculed            | — | — | — | — | — | — | — | honored                |
| 74. | discreet             | — | — | — | — | — | — | — | blunt                  |
| 75. | composed             | — | — | — | — | — | — | — | easily ruffled         |
| 76. | principled           | — | — | — | — | — | — | — | unprincipled           |
| 77. | the ideal            | — | — | — | — | — | — | — | not ideal              |
| 78. | unwilling to listen  | — | — | — | — | — | — | — | willing to listen      |
| 79. | reckless             | — | — | — | — | — | — | — | circumspect            |
| 80. | concerned for others | — | — | — | — | — | — | — | unconcerned for others |
| 81. | careless             | — | — | — | — | — | — | — | careful                |
| 82. | secure               | — | — | — | — | — | — | — | insecure               |
| 83. | like other members   | — | — | — | — | — | — | — | unlike other members   |
| 84. | present-oriented     | — | — | — | — | — | — | — | future-oriented        |
| 85. | positive role-model  | — | — | — | — | — | — | — | negative role-model    |
| 86. | arrogant             | — | — | — | — | — | — | — | demure                 |
| 87. | factionist           | — | — | — | — | — | — | — | team-builder           |
| 88. | pretentious          | — | — | — | — | — | — | — | unpretentious          |
| 89. | conflict-averse      | — | — | — | — | — | — | — | conflict-prone         |
| 90. | reconciler           | — | — | — | — | — | — | — | trouble-maker          |



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- 7 - The word on the RIGHT is an EXTREMELY ACCURATE description.

|      |                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                             |
|------|----------------------------|---|---|---|---|---|---|---|-----------------------------|
| 91.  | appropriate                | — | — | — | — | — | — | — | inappropriate               |
| 92.  | dreamer                    | — | — | — | — | — | — | — | realist                     |
| 93.  | dependable                 | — | — | — | — | — | — | — | undependable                |
| 94.  | dominating                 | — | — | — | — | — | — | — | subservient                 |
| 95.  | strategic                  | — | — | — | — | — | — | — | tactical                    |
| 96.  | irrelevant                 | — | — | — | — | — | — | — | relevant                    |
| 97.  | genuine                    | — | — | — | — | — | — | — | puts up a front             |
| 98.  | doubted                    | — | — | — | — | — | — | — | relied on                   |
| 99.  | nice                       | — | — | — | — | — | — | — | awful                       |
| 100. | confusing                  | — | — | — | — | — | — | — | convincing                  |
| 101. | combative                  | — | — | — | — | — | — | — | accommodating               |
| 102. | weakens                    | — | — | — | — | — | — | — | strengthens                 |
| 103. | encourages different ideas | — | — | — | — | — | — | — | discourages different ideas |
| 104. | revolutionary              | — | — | — | — | — | — | — | maintainer                  |
| 105. | sweet                      | — | — | — | — | — | — | — | bitter                      |
| 106. | shy                        | — | — | — | — | — | — | — | assured                     |
| 107. | common                     | — | — | — | — | — | — | — | original                    |
| 108. | tactful                    | — | — | — | — | — | — | — | outspoken                   |
| 109. | egotistical                | — | — | — | — | — | — | — | modest                      |
| 110. | uncertain                  | — | — | — | — | — | — | — | certain                     |
| 111. | self-effacing              | — | — | — | — | — | — | — | self-important              |
| 112. | aloof                      | — | — | — | — | — | — | — | open                        |
| 113. | noncompelling speaker      | — | — | — | — | — | — | — | compelling speaker          |
| 114. | shares group goals         | — | — | — | — | — | — | — | has dissimilar goals        |
| 115. | constant                   | — | — | — | — | — | — | — | double-minded               |
| 116. | unorthodox                 | — | — | — | — | — | — | — | traditional                 |
| 117. | assertive                  | — | — | — | — | — | — | — | submissive                  |
| 118. | vacillating                | — | — | — | — | — | — | — | resolute                    |
| 119. | effective                  | — | — | — | — | — | — | — | ineffective                 |
| 120. | observant                  | — | — | — | — | — | — | — | unobservant                 |

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- 7 - The word on the RIGHT is an EXTREMELY ACCURATE description.

|      |                            | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                                |
|------|----------------------------|---|---|---|---|---|---|---|--------------------------------|
| 121. | prudent                    | — | — | — | — | — | — | — | rash                           |
| 122. | non-member                 | — | — | — | — | — | — | — | member                         |
| 123. | easily swayed              | — | — | — | — | — | — | — | stubborn                       |
| 124. | non-representative         | — | — | — | — | — | — | — | representative                 |
| 125. | self-deprecating           | — | — | — | — | — | — | — | haughty                        |
| 126. | attentive to others' needs | — | — | — | — | — | — | — | disinterested in others' needs |
| 127. | isolationist               | — | — | — | — | — | — | — | people-oriented                |
| 128. | makes a difference         | — | — | — | — | — | — | — | ineffectual                    |
| 129. | applauds                   | — | — | — | — | — | — | — | rebukes                        |
| 130. | hesitant                   | — | — | — | — | — | — | — | confident                      |
| 131. | gathers opinions           | — | — | — | — | — | — | — | self-sufficient                |
| 132. | approachable               | — | — | — | — | — | — | — | remote                         |
| 133. | provides meaning           | — | — | — | — | — | — | — | meaningless                    |
| 134. | opinion giver              | — | — | — | — | — | — | — | opinion seeker                 |
| 135. | counted on                 | — | — | — | — | — | — | — | questioned                     |
| 136. | knowledgeable              | — | — | — | — | — | — | — | untaught                       |
| 137. | informed                   | — | — | — | — | — | — | — | uninformed                     |
| 138. | equalitarian               | — | — | — | — | — | — | — | domineering                    |
| 139. | seeks to influence         | — | — | — | — | — | — | — | easily influenced              |
| 140. | challenging                | — | — | — | — | — | — | — | unchallenging                  |
| 141. | stimulating                | — | — | — | — | — | — | — | suppressing                    |
| 142. | retiring                   | — | — | — | — | — | — | — | pushy                          |
| 143. | separates                  | — | — | — | — | — | — | — | encourages alliances           |
| 144. | untrustworthy              | — | — | — | — | — | — | — | trustworthy                    |
| 145. | close                      | — | — | — | — | — | — | — | detached                       |
| 146. | discerning                 | — | — | — | — | — | — | — | oblivious                      |
| 147. | meek                       | — | — | — | — | — | — | — | bold                           |
| 148. | innovative                 | — | — | — | — | — | — | — | unchanging                     |
| 149. | seeks consensus            | — | — | — | — | — | — | — | self-determining               |
| 150. | succeeds                   | — | — | — | — | — | — | — | fails                          |

KEY:

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|      |                                | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                        |
|------|--------------------------------|---|---|---|---|---|---|---|------------------------|
| 151. | disreputable                   | — | — | — | — | — | — | — | respected              |
| 152. | unconcerned with his/her image | — | — | — | — | — | — | — | image conscious        |
| 153. | unfeeling                      | — | — | — | — | — | — | — | compassionate          |
| 154. | rejecting                      | — | — | — | — | — | — | — | accepting              |
| 155. | cause-oriented                 | — | — | — | — | — | — | — | career-oriented        |
| 156. | indifferent                    | — | — | — | — | — | — | — | devoted                |
| 157. | clueless                       | — | — | — | — | — | — | — | perceptive             |
| 158. | obstinate                      | — | — | — | — | — | — | — | flexible               |
| 159. | restraining                    | — | — | — | — | — | — | — | rousing                |
| 160. | stirring                       | — | — | — | — | — | — | — | repressive             |
| 161. | accomplishes                   | — | — | — | — | — | — | — | fails                  |
| 162. | diplomatic                     | — | — | — | — | — | — | — | frank                  |
| 163. | prejudiced                     | — | — | — | — | — | — | — | open-minded            |
| 164. | bulldogish                     | — | — | — | — | — | — | — | fluctuating            |
| 165. | sows discord                   | — | — | — | — | — | — | — | builds bridges         |
| 166. | congratulates                  | — | — | — | — | — | — | — | criticizes             |
| 167. | easily controlled              | — | — | — | — | — | — | — | controlling            |
| 168. | conservative                   | — | — | — | — | — | — | — | progressive            |
| 169. | ineffective communicator       | — | — | — | — | — | — | — | effective communicator |
| 170. | self-preserving                | — | — | — | — | — | — | — | self-sacrificing       |
| 171. | unaware                        | — | — | — | — | — | — | — | aware                  |
| 172. | relies on others               | — | — | — | — | — | — | — | autonomous             |
| 173. | not credible                   | — | — | — | — | — | — | — | credible               |
| 174. | builds confidence              | — | — | — | — | — | — | — | undermines confidence  |
| 175. | moral                          | — | — | — | — | — | — | — | immoral                |
| 176. | unreliable                     | — | — | — | — | — | — | — | reliable               |
| 177. | unwavering                     | — | — | — | — | — | — | — | wavering               |

Appendix C: Scales and Alphas for 11 Factors

Table 134. Scales for Factor 1

| FACTOR 1   |   |   |
|--|---|---|
| FULL $\alpha = 0.9687$   | 10-ITEM $\alpha = 0.9591$   | 5-ITEM $\alpha = 0.9428$  |
| revered - despised<br>held in high esteem - scorned<br>highly respected - held in contempt<br>honored - ridiculed<br>respected - disreputable<br>dependable - undependable<br>trustworthy - untrustworthy<br>credible - not credible<br>reliable - unreliable<br>ethical - unethical<br>virtuous - unscrupulous<br>principled - unprincipled<br>moral - immoral<br>exemplary - non-exemplary<br>the ideal - not ideal<br>positive role-model - negative role-model<br>believed - suspected<br>trusted - mistrusted<br>relied on - doubted<br>counted on - questioned | highly regarded - held in contempt<br>respected - disreputable<br>trustworthy - untrustworthy<br>credible - not credible<br>reliable - unreliable<br>moral - immoral<br>the ideal - not ideal<br>positive role-model - negative role-model<br>trusted - mistrusted<br>counted on - questioned | respected - disreputable<br>trustworthy - untrustworthy<br>credible - not credible<br>trusted - mistrusted<br>counted on - questioned |

Table 135. Scales for Factor 2

| FACTOR 2  |  |  |
|---|--|--|
| FULL $\alpha = 0.9334$  | 10-ITEM $\alpha = 0.9255$  | 5-ITEM $\alpha = 0.8890$   |
| thoughtful -<br>thoughtless   | thoughtful -<br>thoughtless                                      | considerate -<br>inconsiderate                                       |
| considerate -<br>inconsiderate                                      | considerate -<br>inconsiderate                                   | concerned for others -<br>uncon'd for others                         |
| concerned for others -<br>uncon'd for others                        | concerned for others -<br>uncon'd for others                     | attentive to<br>others' needs -<br>disinterested in<br>others' needs |
| attentive to others'<br>needs - disinterest-<br>ed in others' needs | attentive to others'<br>needs - disinter-<br>ested in o's' needs | builds confidence -<br>undermines conf.                              |
| compassionate -<br>unfeeling  | compassionate -<br>unfeeling                                     | team-builder -<br>factionist   |
| trusts co-workers -<br>doubts co-workers                            | trusts co-workers -<br>doubts co-workers                         |  |
| empowering -<br>smothering  | builds confidence -<br>undermines conf.                          |  |
| strengthens - weakens   | promotes unity -<br>divisive                                     |  |
| builds confidence -<br>undermines confi-<br>dence                   | team-builder -<br>factionist                                     |  |
| promotes unity -<br>divisive  | builds bridges -<br>sows discord                                 |  |
| team-builder -<br>factionist  |  |  |
| reconciler -<br>trouble-maker                                       |  |  |
| encourages alliances -<br>separates                                 |  |  |
| builds bridges -<br>sows discord                                    |  |  |

Table 126. Scales for Factor 3

| FACTOR 3                                 |                             |                           |
|--|-----------------------------|---------------------------|
| FULL $\alpha = 0.9405$                   | 10-ITEM $\alpha = 0.8984$   | 5-ITEM $\alpha = 0.8065$  |
| illuminates - clouds                     | illuminates - clouds        | illuminates - clouds      |
| significant - trivial                    |                             |                           |
| appropriate - inappropriate              | appropriate - inappropriate |                           |
| relevant - irrelevant                    |                             | relevant - irrelevant     |
| provides meaning - meaningless           | relevant - irrelevant       |                           |
| persuasive - unpersuasive                | logical - illogical         | convincing - unconvincing |
| logical - illogical                      | convincing - confusing      | perceptive - clueless     |
| convincing - confusing                   |                             |                           |
| compelling speaker - non-compelling spkr | informed - uninformed       | composed - easily ruffled |
| effective                                | perceptive - clueless       |                           |
| communicator - ineffective               |                             |                           |
| communicator                             | aware - unaware             |                           |
| watchful - inattentive                   |                             |                           |
| observant - unobservant                  | confident - hesitant        |                           |
| informed - uninformed                    | composed - easily ruffled   |                           |
| discerning - oblivious                   |                             |                           |
| perceptive - clueless                    |                             |                           |
| aware - unaware                          |                             |                           |
| poised - timid                           |                             |                           |
| secure - insecure                        |                             |                           |
| assured - shy                            |                             |                           |
| certain - uncertain                      |                             |                           |
| confident - hesitant                     |                             |                           |
| poised - agitated                        |                             |                           |
| collected - befuddled                    |                             |                           |
| cool - flustered                         |                             |                           |
| unflappable - distracted                 |                             |                           |
| composed - easily ruffled                |                             |                           |

Table 137. Scales for Factor 4

| FACTOR 4   |  |   |
|--|--|---|
| FULL $\alpha = 0.9212$   | 10-ITEM $\alpha = 0.9141$  | 5-ITEM $\alpha = 0.8765$  |
| productive -<br>unproductive<br>gets results -<br>spins wheels<br>effective -<br>ineffective<br>makes a difference -<br>ineffectual<br>constant -<br>double-minded<br>resolute - vacillating<br>devoted - indifferent<br>achieves - flounders<br>succeeds - fails<br>accomplishes - fails<br>proficient - inept<br>skilled - amateur<br>qualified -<br>unqualified<br>expert - novice<br>knowledgeable -<br>untaught<br>seeks group interests-<br>seeks own interests<br>self-sacrificing -<br>self-preserving | productive -<br>unproductive<br><br>gets results -<br>spins wheels<br><br>effective -<br>ineffective<br><br>makes a difference -<br>ineffectual<br><br>achieves - flounders<br><br>succeeds - fails<br><br>proficient - inept<br><br>skilled - amateur<br><br>expert - novice<br><br>knowledgeable -<br>untaught | gets results -<br>spins wheels<br><br>makes a difference-<br>ineffectual<br><br>achieves -<br>flounders<br><br>succeeds - fails<br><br>proficient - inept |

Table 138. Scales for Factor 5

| FACTOR 5               |                           |                          |
|------------------------|---------------------------|--------------------------|
| FULL $\alpha = 0.8917$ | 10-ITEM $\alpha = 0.8752$ | 5-ITEM $\alpha = 0.8165$ |
| inspiring - stifling   | inspiring - stifling      | stirring -               |
| challenging -          |                           | repressive               |
| unchallenging          | challenging -             |                          |
| stimulating -          | unchallenging             | revolutionary -          |
| suppressing            |                           | maintainer               |
| rousing - restraining  | stimulating -             |                          |
| stirring - repressive  | suppressing               | innovative -             |
| visionary - practical  |                           | unchanging               |
| transformational -     | stirring - repressive     |                          |
| stagnant               |                           | creative -               |
| revolutionary -        | transformational -        | unimaginative            |
| maintainer             | stagnant                  |                          |
| innovative -           |                           | innovative -             |
| unchanging             | revolutionary -           | routine                  |
| progressive -          | maintainer                |                          |
| conservative           |                           |                          |
| unconventional -       | innovative -              |                          |
| ordinary               | unchanging                |                          |
| creative -             |                           |                          |
| unimaginative          | progressive -             |                          |
| radical - typical      | conservative              |                          |
| innovative -           |                           |                          |
| routine                | creative -                |                          |
| original - common      | unimaginative             |                          |
|                        | innovative - routine      |                          |



Table 139. Scales for Factor 6

| FACTOR 6   |                                    |  |
|--|------------------------------------|--|
| FULL $\alpha = 0.7262$   | 10-ITEM $\alpha = 0.7262$          | 5-ITEM $\alpha = 0.7174$   |
| like other members -<br>unlike other members<br>shares group goals -<br>has dissimilar goals<br>member - non-member<br>representative -<br>non-representative<br>a family person -<br>strictly business<br>people-oriented -<br>isolationist | USE SAME 6 AS<br><br>IN FULL SCALE | USE SAME 6 AS<br><br>IN FULL SCALE<br><br>EXCEPT<br><br>a family person -<br>strictly business |

Table 140. Scales for Factor 7

| FACTOR 7  |   |  |
|---|---|--|
| FULL $\alpha = 0.9091$  | 10-ITEM $\alpha = 0.9083$   | 5-ITEM $\alpha = 0.8621$   |
| unreceptive -<br>receptive<br>intolerant - tolerant<br>unwilling to listen -<br>willing to listen<br>discourages different<br>ideas -<br>encourages different<br>ideas<br>rejecting - accepting<br>prejudiced -<br>open-minded<br>distant - familiar<br>removed - intimate<br>aloof - open<br>remote - approachable<br>obstinate - flexible | USE SAME 11 AS<br><br>IN FULL SCALE<br><br>EXCEPT<br><br>aloof - open | unreceptive -<br>receptive<br><br>prejudiced -<br>open-minded<br><br>removed - intimate<br><br>remote -<br>approachable<br><br>obstinate -<br>flexible |

Table 141. Scales for Factor 8

| FACTOR 8                         |                                  |                            |
|----------------------------------|----------------------------------|----------------------------|
| FULL $\alpha = 0.9252$           | 10-ITEM $\alpha = 0.8954$        | 5-ITEM $\alpha = 0.8289$   |
| pompous - unassuming             | conceited - humble               | arrogant - demure          |
| conceited - humble               |                                  |                            |
| arrogant - demure                | arrogant - demure                | egotistical - modest       |
| egotistical - modest             | egotistical - modest             |                            |
| self-important - self-effacing   | pushy - retiring                 | pushy - retiring           |
| haughty - self-deprecating       | overpowering - submissive        | overpowering - submissive  |
| aggressive - docile              |                                  |                            |
| insistent - reticent             | dominating - subservient         | domineering - equalitarian |
| forceful - reserved              |                                  |                            |
| assertive - submissive           | domineering - equalitarian       |                            |
| pushy - retiring                 | confrontational - cooperative    |                            |
| bold - meek                      | conflict-prone - conflict-averse |                            |
| overpowering - submissive        | combative - accommodating        |                            |
| commanding - obsequious          |                                  |                            |
| dominating - subservient         |                                  |                            |
| domineering - equalitarian       |                                  |                            |
| manipulative - often manipulated |                                  |                            |
| controlling - easily controlled  |                                  |                            |
| confrontational - cooperative    |                                  |                            |
| conflict-prone - conflict-averse |                                  |                            |
| combative - accommodating        |                                  |                            |

Table 142. Scales for Factor 9

| FACTOR 9  |                                     |   |
|---|-------------------------------------|---|
| FULL $\alpha = 0.8021$  | 10-ITEM $\alpha = 0.8021$           | 5-ITEM $\alpha = 0.7374$  |
| dangerous - safe<br>reckless - circumspect<br>careless - careful<br>rash - prudent<br>self-sufficient -<br>gathers opinions<br>opinion-giver -<br>opinion-seeker<br>self-determining -<br>seeks consensus<br>unconventional -<br>ordinary<br>radical - typical<br>unorthodox -<br>traditional | USE SAME 10 AS<br><br>IN FULL SCALE | dangerous - safe<br><br>reckless -<br>circumspect<br><br>rash - prudent<br><br>radical - typical<br><br>unorthodox -<br>traditional<br><br>NOTE ALL PAIRS FOR<br>"INDEPENDENT" HAVE<br>DROPPED OUT. |

Table 143. Scales for Factor 10

| FACTOR 10   |                                    |                                    |
|---|------------------------------------|------------------------------------|
| FULL $\alpha = 0.6724$  | 10-ITEM $\alpha = 0.6724$          | 5-ITEM $\alpha = 0.6724$           |
| concerned with<br>reputation -<br>unconcerned with<br>reputation<br>values appearances -<br>authentic<br>pretentious -<br>unpretentious<br>puts up a front -<br>genuine<br>image conscious -<br>unconcerned with<br>his/her image | USE SAME 5 AS<br><br>IN FULL SCALE | USE SAME 5 AS<br><br>IN FULL SCALE |

Table 144. Scales for Factor 11

| FACTOR 11   |                                    |  |
|---|------------------------------------|--|
| FULL $\alpha = 0.6128$  | 10-ITEM $\alpha = 0.6128$          | 5-ITEM $\alpha = 0.6068$   |
| forthright - political<br>direct - ambiguous<br>candid - evasive<br>blunt - discreet<br>outspoken - tactful<br>frank - diplomatic | USE SAME 6 AS<br><br>IN FULL SCALE | USE SAME 6 AS<br><br>IN FULL SCALE<br><br>EXCEPT<br>candid - evasive |

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### *Vita*

Captain Daniel K. Hicks was born on 29 May 1956 in Shelton, Washington. He graduated from Cedarburg High School in Cedarburg, Wisconsin in 1974. After high school, he enrolled at Cedarville College in Cedarville, Ohio, receiving a Bachelor of Arts degree upon graduation in 1985. He completed his undergraduate degree with biology as his major field of study and chemistry and Bible as minor fields. He entered Officer Training School in April 1985 and was commissioned on 3 July 1985. He reported that same month to McConnell AFB, Kansas to begin serving with the 384th Supply Squadron. During his tour at the base, he first headed the Bomber/Tanker Support Section in direct support of flight operations and then served as the Wing/Base Materiel Management Officer. In August 1987, he reported to the 43d Supply Squadron at Andersen AFB, Guam. There, he performed his primary duties in the same capacities as he had at McConnell AFB. Additionally, in his role as squadron mobility officer, he supported more than 30 wing deployments to exercises with other units within Strategic Air Command, and units from other commands, sister services, and United States allies. Upon reassignment from Andersen AFB, he entered the School of Systems and Logistics, Air Force Institute of Technology, in May 1990.

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# REPORT DOCUMENTATION PAGE

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